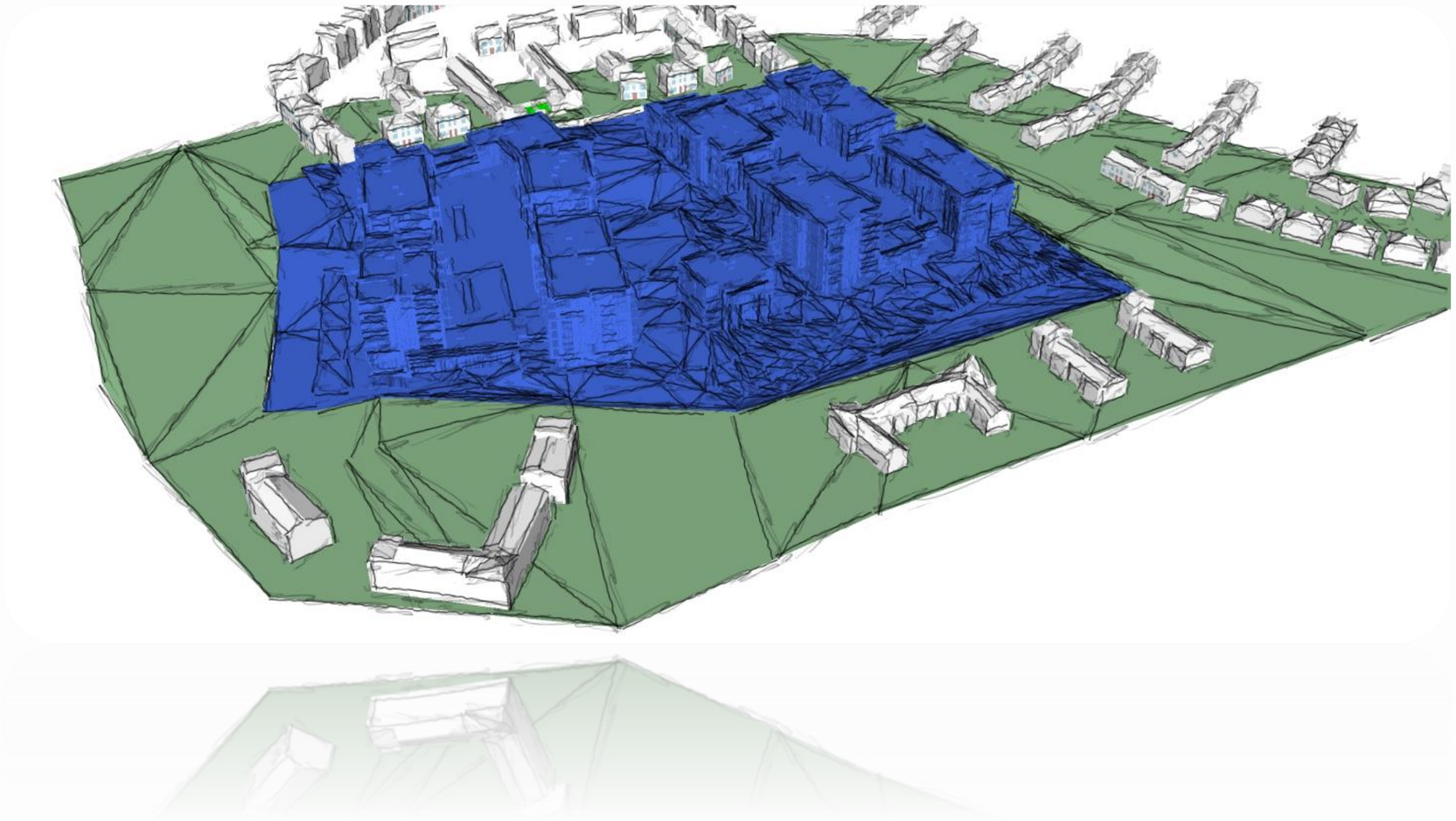
‘SECTOR 3’, AIKEN’S VILLAGE, STEPASIDE, CO. DUBLIN

Sunlight, Daylight & Shadow Assessment (Impact Neighbours & Development Performance)

V7



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Executive Technical Summary

This report examines the impact the proposed Development will have on neighbours in terms of daylight, sunlight & shadow.

We will also examine how the proposed development performs in terms of light. The report is, in accordance with the recommendations and guidelines of "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice" BR209 (Version 3, 2022).

It should be noted at the outset that the BRE document sets out in its introduction that:

> *"Summary Page . . . It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location."*
>
> *" 1.6 . . . The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design. . . . "*

Change/Impact to neighbouring buildings in the adjoining residential areas.

- **Skylight- VSC**
  - **100%** of the tested windows comply with the 27%, 0.8 ratio requirements for habitable rooms.
  - The average change ratio for VSC is **0.87**
- **Sunlight APSH & WPSH**
  - **100%** of tested windows comply with the annual APSH and
  - **100%** with the winter WPSH requirements for sunlight or overall requirement.
  - The average change ratio for sunlight is APSH:**0.89**
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of tested neighbouring amenity spaces pass the 2-hour test requirements for the 21st March.
  - The average change ratio for shadow/sunlight is **0.97**

Performance of the proposed design

- **Target Illuminance E_T**
  - **95%** of rooms comply with the BS/EN 17037 Annex NA room targets for 50% of the floor area tested.
  - If we include those that are marginal this increases to ***99%***
  - The average complaint areas achieving the relevant target Lx for
    - all bedrooms is **95%** and
    - all Living/Kitchen spaces **69%**
    - both are well in excess of the required 50%
- **Sunlight to Living rooms:**
  - Most windows to living rooms receive some sunlight and the number that face North are small.
  - **95%** (***97%*** if we include marginals) comply with the 1.5hr BRE test on the 21st March.
  - This is consistent with the BRE defined "careful layout design" 80% target.
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of the proposed communal & Public Amenity spaces pass the relevant requirements
  - **95%** of the private balconies (not required to be tested) would also comply.
  - The proposed development complies with the requirements of the BRE guidelines in relation to Sunlight/Shadow availability and careful layout design.

The application generally complies with the recommendations and guidelines of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice BR209 (Version 3, 2022) when considered in terms a regeneration project in an un-developed lot and the BRE "Careful Layout Design" requirements.

This development has been successfully designed to maximise the occupant's access to light and reduce the impact on existing buildings. As such the design has used the guidelines in the spirit they have been written and balanced the requirements of this report with other constraints to arrive at this design.

Non-Technical Summary
Impact on Neighbours

When we examine the impact on neighbouring properties, we look this in terms of the BRE guidelines "Site Layout Planning for Daylight and Sunlight, a guide to good practice. These guidelines were produced following an extensive period of consultation with architects, planning officers, consultants, professional institutions, and government officials and are in their 3rd Edition. The principal author Dr Paul Littlefair is considered one of the foremost experts in the field.

These guidelines form the best practice for impact analysis relating to light and are quoted in Development Plans, and government publications. They provide a standard quantitative method of analysis rather than the traditional subjective discussion used before their adoption.

Glossary

Skylight:
Light that is received from a standard CIE overcast sky. It is orientation independent and does not include reflected or direct light. Skylight is darkest at the horizon and brightest overhead.

Sunlight - Probable Sunlight Hours:
Is a long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when cloud cover is considered). This is defined by the project's location and the information comes from Met Eireann and is based on historical data.

- **Annual APSH -** As above relating to the entire Year.
- **Winter WPSH -** The above expressed over just the winter months (21st Sept and 21st March)

Daylight:
Combined skylight and sunlight.

Shadow:
Absence of sunlight to amenity spaces.

Habitable rooms:
The guidelines are intended for use for habitable rooms where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

Form of BRE Checks

The BRE checks maintain a common form when they look at impact by on neighbours.

They initially test against a minimum requirement and if this is not achieved then the change ratio of the existing vs proposed is checked against a value of 0.80. This ratio represents a 20% reduction which an occupant of an existing building is unlikely to notice.

Standard tests performed.

The BRE guidelines recommend that following be investigated for neighbour impact:

- VSC Windows Skylight to habitable rooms
- APSH/WPSH Windows Sunlight to Living rooms / conservatories.
- Sunlight/Shadow to amenity spaces (gardens)

We test light to the windows as we do not have detailed information about rooms spaces beyond the same. Window selection is confined to those facing the development and/or worst-case windows.

VSC - Vertical Sky Component – Windows Skylight

This check is used to measure of the quantity of skylight that a window can receive.
It is orientation independent is solely related to obstructions existing and proposed.

Skylight may be considered as ambient light that which provides light to work or read by and reduces the dependence on electric light.

The computation of VSC Vertical Sky Component is based on a mathematical analysis using a 3D model of the surrounding buildings, existing buildings on site and the proposed development. It is effectively a 3D version of a traditional section which also allows for light distribution associated with the CIE overcast sky and the places greater priority on what is in front of a window.

- The test uses a minimum VSC requirement of 27% or the 0.80 change ratio.

VSC Skylight – Project Analysis results

- 36 Windows were tested.
- All but one exceeded the 27% minimum value.
- The overall average VSC change ratio for all windows was 0.86 (a 14% reduction)
- All windows complied with the requirements.

APSH/WPSH Windows Sunlight

People like sunlight in rooms and it provides light and warmth, making rooms look bright and cheerful and also having a therapeutic, health giving effect. In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories.

Sunlight provides dynamic lighting within a room and we test for windows of living rooms which face within 90° of due South. Such windows would receive good sunlight over the course of the year and loss of the same would be significant.

North facing windows or those predominately North facing are not tested. While they may receive some sunlight for brief periods of the year it is unreasonable to look to protect sunlight over such an acute angle.

- The test uses a minimum Annual APSH requirement of 27% or the 0.80 change ratio.
- We also test for the Winter WPSH of 5% or the 0.80 change ratio.
- For Sunlight there is a third check for very minor change in where the APSH is < 4%.

APSH/WPSH Sunlight - Project Analysis results

- All Windows were tested.
- APSH for all relevant windows exceed the 25% minimum value.
- WPSH for all relevant windows exceed the 5% minimum value.
- The overall average APSH change ratio for all windows was 0.89 (an 11% reduction)
- All windows complied with the requirements.

Sunlight / Shadow

New development should take care to safeguard the access to sunlight to the amenity spaces existing dwellings.

In working out the total area to be considered, driveways and hard standing for cars should be left out. Around housing, front gardens which are relatively small and visible from public footpaths should be omitted; only the main back garden should be analysed. Each individual garden for each dwelling should be considered separately.

The analysis looks at the mathematical potential for sunlight at the Spring Equinox 21st March. This test and the minimum requirement are set to evaluate the impact on the amenity spaces over the course of the year, not just on the test day.

Since gardens are contiguous spaces it is expected that the light to the same will improve towards the summer and reduce in winter months. In consideration of lower theoretical winter results one should also allow for the fact that winter months have little direct sunlight, due to limited sunlight hours and cloud cover.

- The Shadow test uses a minimum Sunlight requirement of 50% or the 0.80 change ratio.

Sunlight/Shadow – Project Analysis results

- The 4 private Residential Gardens North were tested.
- All exceed the 50% minimum value.
- The overall average Sunlight/Shadow change ratio for all amenities was 0.97 (a 3% reduction)
- All amenity spaces complied with the requirements.
- Appendix 5 provides an alternative analysis and shows results for these gardens for each month of the Year. This alternative analysis correlates and shows similar results to the standard BRE test on the 21st March.

Contents

Introduction

Chris Shackleton Consulting (CSC) have been asked to examine the impact that the proposed development will have on the existing neighbouring properties in terms of sunlight, daylight & shadow. We have also been asked to examine how the proposed development performs in terms of light.

This analysis has been carried out in accordance with the recommendations of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice - Third Edition (BRE 2022).

All references quoted in this report are from BRE document "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice – Third Edition – 2022 (BR 209) by Paul Littlefair et al." unless specifically noted otherwise.

Preliminary Overview

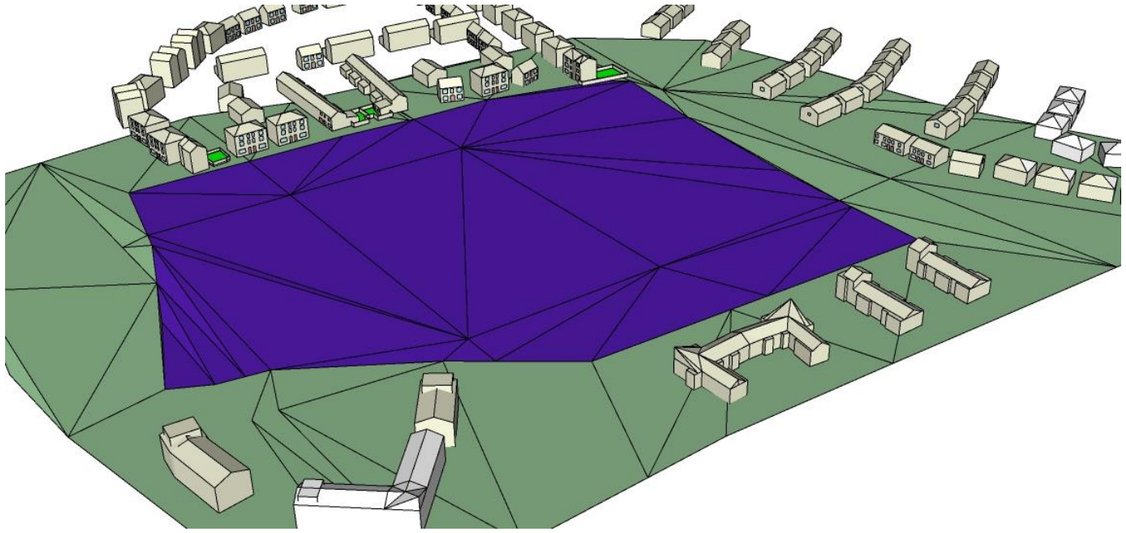
The aerial view shows the context for the site and the closest neighbouring window groups.

Google Earth extract © Google 2020

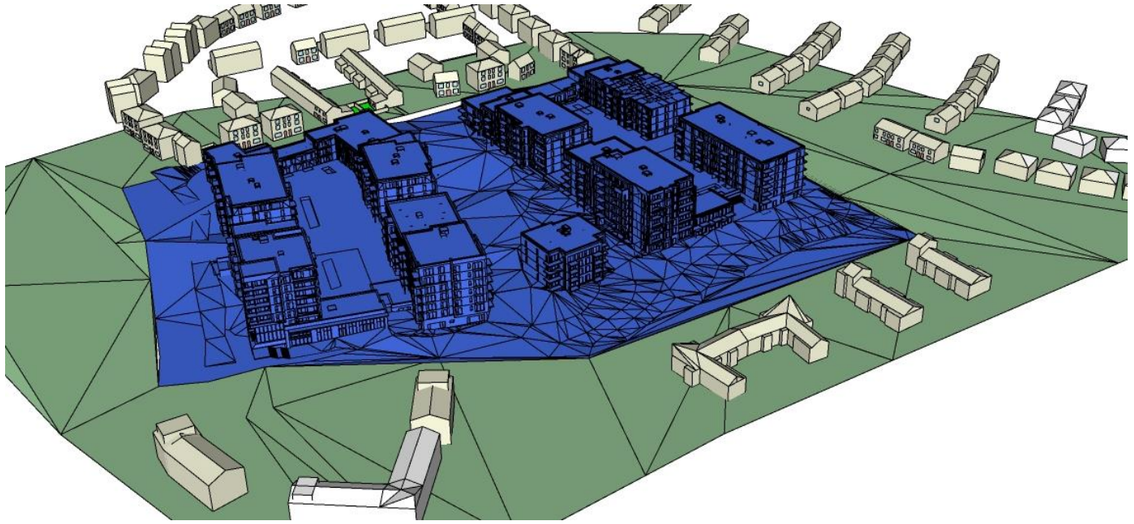
Design Model

A 3D model of the proposed development and the surrounding neighbouring properties was provided by the Architect. These had been modelled from survey information and drawings provided in plan, elevation and section formats. The model was geo-referenced to its correct location and an accurate solar daylight system was introduced. Here "Cream" indicates surrounding environment, "Purple" the existing greenfield site, "Blue" this proposal.

The analysis is based on the information provided.



Existing Model



Proposed Model

Scope of this Report

We have been asked to address the following specific items in this report and our scope is limited to the same:

Impact on Existing Neighbours

In this document we will assess the potential impact of the proposed development on the neighbouring residential houses. We will test for the following in relation to impact:

- Existing facing windows for:
  - Impact/Change for Skylight – **V**ertical **S**ky **C**omponent - VSC
  - Impact/Change for **P**robable **S**unlight **H**ours – Annual APSH and Winter WPSH
- Existing amenity spaces for impact/change on Sunlight/Shadow

Development Performance

For the proposed development we will examine the performance of the development under the following headings:

- Target Illuminance – E_T – All habitable rooms
- Sunlight to rooms – A room preferably a living space.
- Sunlight on the Ground SOG (Shadow) - Proposed Public & Shared amenity spaces

Normally when examining the internal performance of a development where the layout and rooms follow similar design principles floor-by-floor, we would test an entire floor typically at 1st floor level to provide a good representative indication of the overall building performance.

In this case we have been requested to test all rooms, all floors on all blocks. The results for this analysis are summarised in the main body of the report and the individual results are presented in the Appendices as detailed below:

- **Appendix 1 – Analysis Room Numbering**
- **Appendix 2 – Light Distribution – Target illuminance ET**
- **Appendix 3 – Sunlight Living rooms**
- **Appendix 4 - Shadow to Private Amenity Spaces (Balconies)**
- **Appendix 5 - Alternative Assessments Neighbours' Amenities North**
- **Appendix 6 - Alternative Assessments Proposed Shared & Public Amenity**
- **Appendix 7 – Light Distribution – Target illuminance ET - Non-Annex Analysis (Design Standards & Guidelines)**

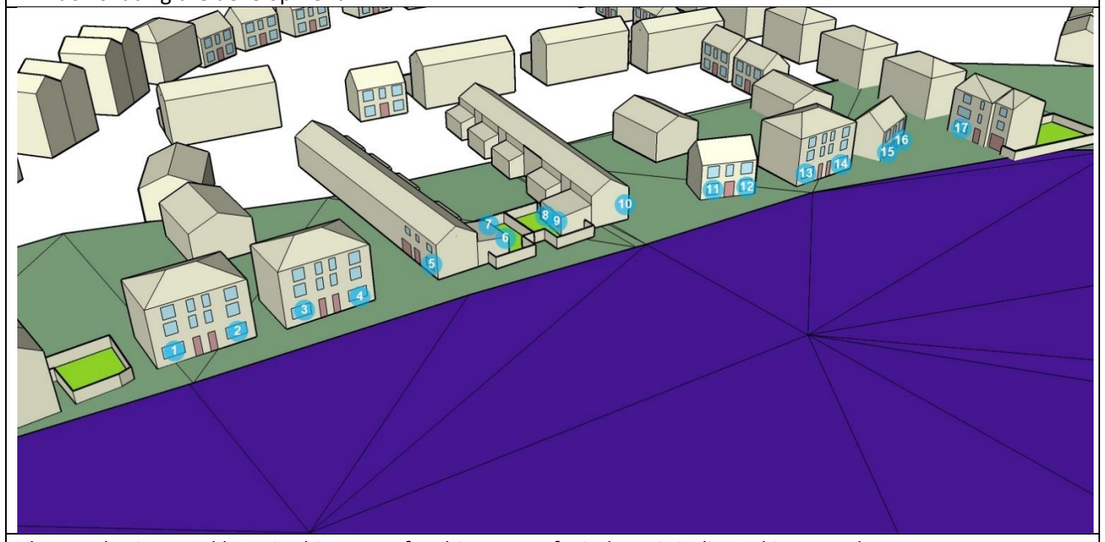
Adjacent Properties Details

The numbering used later for windows in each of the blocks is detailed below.

Neighbours – North (Window Group B1)

Oblique imagery © Google 2022

Windows facing the development

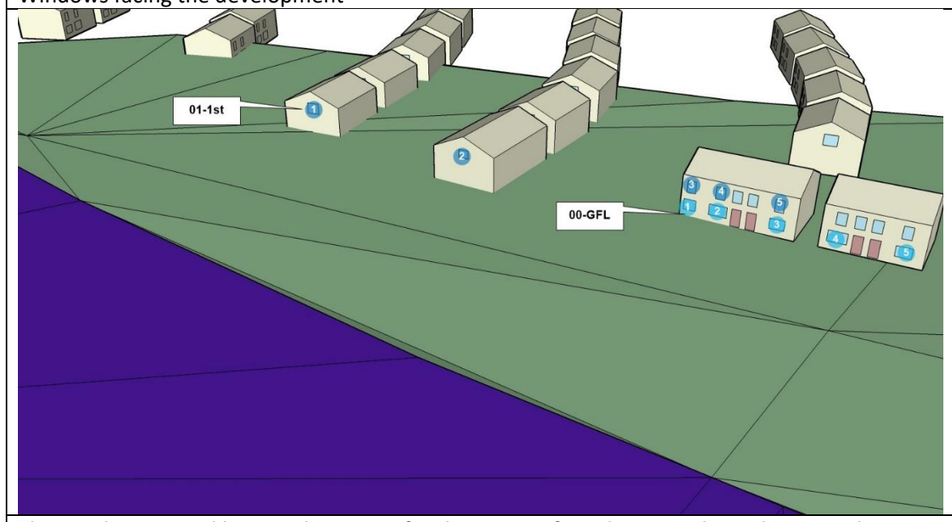


The numbering used later in this report for this group of windows is indicated in cyan above.
Amenity spaces (gardens) are noted in green

Neighbours– East (Window Group B2)

Oblique imagery ©Microsoft Bing Maps 2022

Windows facing the development

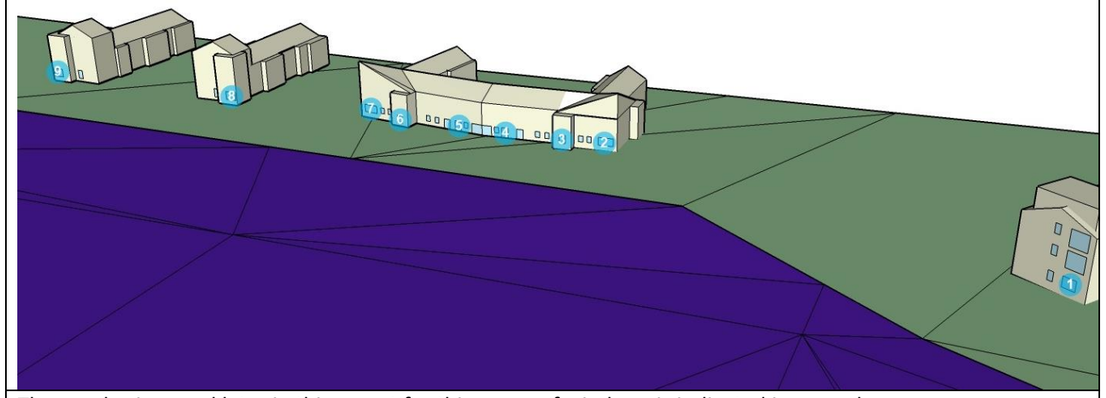


The numbering used later in this report for this group of windows is indicated in cyan above.

Neighbours – South (Window Group B3)

Oblique imagery ©Microsoft Bing Maps 2020

Windows facing the development



The numbering used later in this report for this group of windows is indicated in cyan above.

Impact on neighbours

Adjacent Properties - Light from the Sky impact on neighbouring properties

Tests were carried out to establish the quantity and quality of skylight (daylight) available to a room's windows. Locations tested are based on guideline recommendations for the closest facades which have windows with potential for impact.

We have investigated this impact under clause 2.2.7

> ***2.2.7 If this VSC is greater than 27% then enough skylight should still be reaching the window of the existing building. This value of VSC typically supplies enough daylight to a standard room when combined with a window of normal dimensions, with glass area around 10% or more of the floor area. Any reduction below this level should be kept to a minimum. If the VSC, with the new development in place, is both less than 27% and less than 0.80 times its former value, occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window is likely to appear gloomier, and electric lighting will be needed more of the time. . . .***
>
> ***2.2.6 Any reduction in the total amount of skylight can be calculated by finding the VSC at the centre of each main window. In the case of a floor-to-ceiling window such as a patio door, a point 1.6 m above ground (or balcony level for an upper storey) on the centre line of the window may be used. For a bay window, the centre window facing directly outwards can be taken as the main window. If a room has two or more windows of equal size, the mean of their VSCs may be taken. The reference point is in the external plane of the window wall. Windows to bathrooms, toilets, storerooms, circulation areas, and garages need not be analysed. . . .***

Tabulated results

	Skylight to habitable rooms					
	VSC					
Report	*Check > 27% or ratio > 0.8*					
Ref	**Floor**	**Window**	**Existing**	**Proposed**	**Ratio**	**Result**
B1	**00-GFL**	**W1**	39.4	28.9	0.74	Pass
B1	00-GFL	W2	39.4	29.8	0.76	Pass
B1	00-GFL	W3	39.5	29.9	0.76	Pass
B1	00-GFL	W4	39.5	28.8	0.73	Pass
B1	00-GFL	W5	29.4	26.3	0.89	Pass
B1	00-GFL	W6	35.0	33.7	0.96	Pass
B1	00-GFL	W7	32.8	32.3	0.98	Pass
B1	00-GFL	W8	32.3	31.0	0.96	Pass
B1	00-GFL	W9	34.2	31.7	0.93	Pass
B1	00-GFL	W10	36.6	34.8	0.95	Pass
B1	00-GFL	W11	39.0	33.0	0.85	Pass
B1	00-GFL	W12	39.2	32.2	0.82	Pass
B1	00-GFL	W13	39.3	31.7	0.81	Pass
B1	00-GFL	W14	39.2	31.9	0.81	Pass
B1	00-GFL	W15	37.6	29.9	0.80	Pass
B1	00-GFL	W16	36.0	29.1	0.81	Pass
B1	00-GFL	W17	35.0	32.5	0.93	Pass
B2	**00-GFL**	**W1**	38.4	33.9	0.88	Pass
B2	00-GFL	W2	38.4	34.2	0.89	Pass
B2	00-GFL	W3	38.5	34.8	0.91	Pass
B2	00-GFL	W4	38.5	35.3	0.92	Pass
B2	00-GFL	W5	38.5	35.6	0.93	Pass
B2	01-1st	W1	38.9	34.0	0.87	Pass
B2	01-1st	W2	39.1	33.7	0.86	Pass
B2	01-1st	W3	38.8	34.9	0.90	Pass
B2	01-1st	W4	38.8	35.1	0.91	Pass
B2	01-1st	W5	38.8	35.7	0.92	Pass
B3	**00-GFL**	**W1**	38.6	29.3	0.76	Pass
B3	00-GFL	W2	38.0	32.1	0.85	Pass
B3	00-GFL	W3	38.4	32.5	0.85	Pass
B3	00-GFL	W4	38.1	32.5	0.85	Pass
B3	00-GFL	W5	38.0	32.7	0.86	Pass
B3	00-GFL	W6	38.4	33.2	0.87	Pass
B3	00-GFL	W7	38.0	33.3	0.88	Pass
B3	00-GFL	W8	38.4	33.7	0.88	Pass
B3	00-GFL	W9	38.2	35.1	0.92	Pass

Note: When the proposed value exceeds the minimum requirement the ratio check is not required, and the result is coloured grey.

Conclusion

When tested with the new development in place
100% of the tested windows comply with the 27%, 0.8 ratio requirements for habitable rooms.

The average change ratio for VSC is **0.87**

The proposed development complies with the requirements of the BRE guidelines in relation to skylight availability for neighbours.

Adjacent Properties - Sunlight into living spaces

Tests for the amount of sunlight that windows to living room and/or conservatory can receive over both annual and winter periods.

> ***3.2.3 To assess loss of sunlight to an existing building, it is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. Normally loss of sunlight need not be analysed to kitchens and bedrooms, except for bedrooms that also comprise a living space, for example a bed sitting room in an old people's home. . . .***
>
> ***3.2.4 To calculate the loss of sunlight over the year, a different metric, the annual probable sunlight hours (APSH), is used. Here 'probable sunlight hours' means the total number of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloudiness for the location in question (based on sunshine probability data). The sunlight reaching a window is quantified as a percentage of this unobstructed annual total. … The APSH is a better way of quantifying loss of sunlight because it takes into account sunlight received over the whole year, not just on one particular date.***
>
> ***3.2.13 If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:***
> ***• receives less than 25% of annual probable sunlight hours and less than 0.80 times its former annual value; or less than 5% of annual probable sunlight hours between 21 September and 21 March and less than 0.80 times its former value during that period;***
> ***• and also has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.***

While not all windows relate to living rooms, we have for completeness tested all of them. Note only windows which face within 90˚of due South require testing and those that do not, are notionally labelled as "North" in the table below.

The results are tabulated below:

Sunlight on windows to living room spaces check											
			Annual - 25% and Winter - 5%								
Design			*Check > 25% or ratio > 0.8*					*Check > 5% or ratio > 0.8*			
Ref	**Floor**	**Window**	**Existing**	**Proposed**	**Ratio**	**Result**		**Existing**	**Proposed**	**Ratio**	**Result**
B1	**00-GFL**	**W1**	85.7	65.5	0.76	Pass		32.0	12.7	0.40	Pass
B1	00-GFL	W2	85.1	66.8	0.79	Pass		32.0	14.7	0.46	Pass
B1	00-GFL	W3	86.6	68.5	0.79	Pass		32.0	14.7	0.46	Pass
B1	00-GFL	W4	86.7	66.6	0.77	Pass		32.1	12.7	0.39	Pass
B1	00-GFL	W5	45.8	37.3	0.81	Pass		17.7	9.2	0.52	Pass
B1	00-GFL	W6	North	North		Pass		North	North		Pass
B1	00-GFL	W7	North	North		Pass		North	North		Pass
B1	00-GFL	W8	54.5	50.3	0.92	Pass		16.8	12.5	0.75	Pass
B1	00-GFL	W9	55.3	50.7	0.92	Pass		17.1	12.4	0.73	Pass
B1	00-GFL	W10	North	North		Pass		North	North		Pass
B1	00-GFL	W11	88.3	77.3	0.88	Pass		32.2	21.4	0.66	Pass
B1	00-GFL	W12	89.0	76.6	0.86	Pass		32.2	20.0	0.62	Pass
B1	00-GFL	W13	85.2	72.6	0.85	Pass		32.2	19.9	0.62	Pass
B1	00-GFL	W14	84.9	72.6	0.85	Pass		32.2	19.8	0.62	Pass
B1	00-GFL	W15	74.7	59.2	0.79	Pass		31.2	15.8	0.51	Pass
B1	00-GFL	W16	69.8	56.6	0.81	Pass		30.2	17.1	0.57	Pass
B1	00-GFL	W17	54.2	47.6	0.88	Pass		17.2	10.6	0.61	Pass
B2	**00-GFL**	**W1**	61.1	59.5	0.97	Pass		21.0	20.5	0.98	Pass
B2	00-GFL	W2	61.1	59.5	0.97	Pass		21.0	20.5	0.98	Pass
B2	00-GFL	W3	61.1	59.8	0.98	Pass		21.0	20.8	0.99	Pass
B2	00-GFL	W4	61.1	60.1	0.98	Pass		21.0	21.0	1.00	Pass
B2	00-GFL	W5	61.1	60.4	0.99	Pass		21.0	21.0	1.00	Pass
B2	01-1st	W1	66.2	64.0	0.97	Pass		23.4	21.2	0.91	Pass
B2	01-1st	W2	61.1	58.7	0.96	Pass		21.0	19.0	0.90	Pass
B2	01-1st	W3	61.1	60.4	0.99	Pass		21.0	20.7	0.99	Pass
B2	01-1st	W4	61.1	60.5	0.99	Pass		21.0	20.8	0.99	Pass
B2	01-1st	W5	61.1	60.5	0.99	Pass		21.0	20.8	0.99	Pass
B3	**00-GFL**	**W1**	North	North		Pass		North	North		Pass
B3	00-GFL	W2	North	North		Pass		North	North		Pass
B3	00-GFL	W3	North	North		Pass		North	North		Pass
B3	00-GFL	W4	North	North		Pass		North	North		Pass
B3	00-GFL	W5	North	North		Pass		North	North		Pass
B3	00-GFL	W6	North	North		Pass		North	North		Pass
B3	00-GFL	W7	North	North		Pass		North	North		Pass
B3	00-GFL	W8	North	North		Pass		North	North		Pass
B3	00-GFL	W9	North	North		Pass		North	North		Pass

Note: When the proposed value exceeds the minimum requirement the ratio check is not required, and the result is coloured grey.

Conclusion

When tested with the proposed development in place:
100% of tested windows comply with the annual APSH and
100% with the winter WPSH requirements for sunlight or overall requirement.

The average change ratio for sunlight is APSH:**0.89**

The proposed development complies with the requirements of the BRE guidelines in relation to both annual and winter sunlight availability to neighbours as it applies to living rooms and conservatories.

Adjacent Properties – Sunlight on the Ground (Shadow)
Gardens and Open spaces

Tests for the availability of sunlight in amenity areas.

> ***3.3.17 It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area that can receive two hours of sun on 21 March is less than 0.80 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March***
>
> ***3.3.3 The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:***
> ***• gardens, such as the main back garden of a house or communal gardens including courtyards and roof terraces***
> ***• parks and playing fields***
> ***• children's playgrounds***
> ***• outdoor swimming pools and paddling pools, and other areas of recreational water such as marinas and boating lakes***
> ***• sitting out areas such as those between non-domestic buildings and in public squares***
> ***• nature reserves (which may have special requirements for sunlight if rare plants are growing there).***

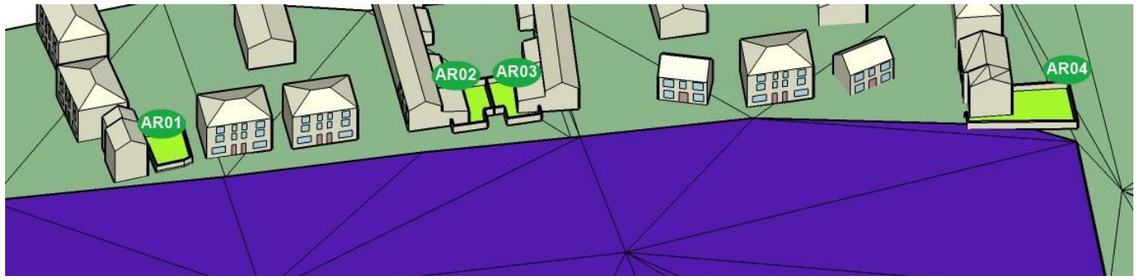
The amenities of the following properties were tested.

- Gardens North which may be impacted by this proposal.
  (Excludes gardens which sit behind their existing houses

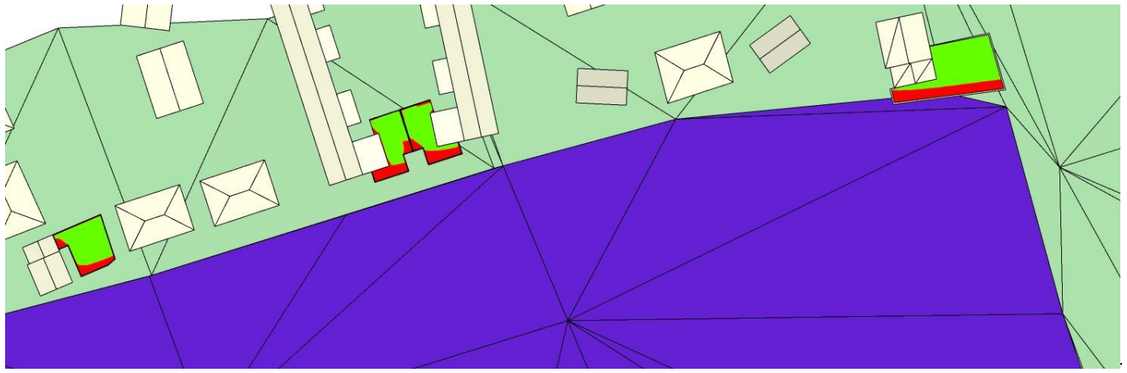
BRE 2-hour Shadow Plots

The graphic below indicates the areas which receive 2 hours of sunlight on the 21st March in accordance with the BRE guidelines.

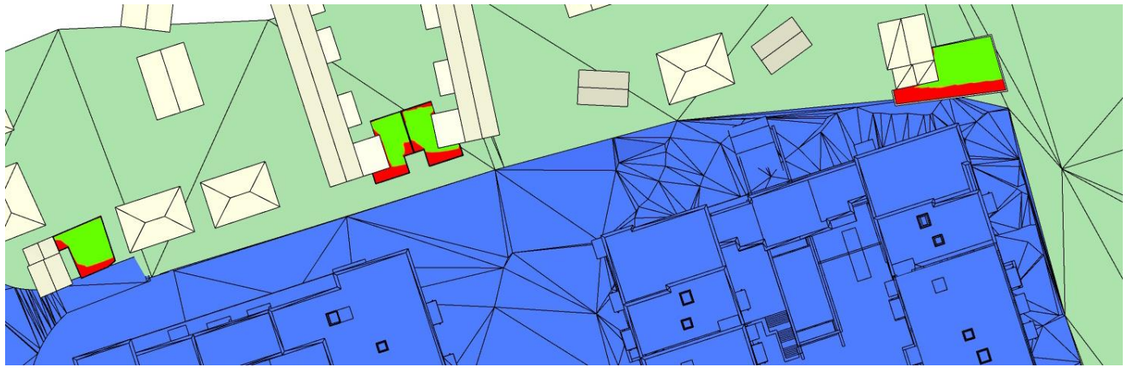
- **Green** represents areas which exceed the 2-hour requirement - pass
- **Red** is less than the 2-hour requirement - fail
- **Orange** are marginal or borderline - just below the 2-hour requirement



Test Residential Amenity - Gardens



Existing



Proposed

The results are tabulated below:

		Shadow to amenity spaces			
	Design	**2-hour Sunlight - 21st March**			
		Check > 50% or ratio > 0.8			
Zone	**Description**	**Existing**	**Proposed**	**Ratio**	**Result**
AR01	Private Residential North	82%	81%	0.98	Pass
AR02	Private Residential North	72%	72%	1.00	Pass
AR03	Private Residential North	71%	71%	1.00	Pass
AR04	Private Residential North	72%	66%	0.92	Pass

Note: When the proposed value exceeds the minimum requirement the ratio check is not required, and the result is coloured grey.

Please note that passing the BRE requirements does not imply that shadows will not be cast over an amenity space at all. Shadows which are transient by nature may not impact on the percentage of the space which receives 2 hours of sunlight on the 21st of March.

Conclusion

100% of tested neighbouring amenity spaces pass the BRE 2-hours of sunlight on the 21st of March or 0.8 ratio requirement.

The average change ratio for the tested amenity spaces **0.97**

The proposed development complies with the requirements of the BRE guidelines for impact on amenity Sunlight/Shadow.

Summary - Adjacent Properties

Neighbouring properties will generally not be affected by the proposed development and the impacts on Skylight, Sunlight and Shadow have been tested in accordance with the best practice guidelines.

Change/Impact to neighbouring buildings in the adjoining residential areas.

- **Skylight- VSC**
  - **100%** of the tested windows comply with the 27%, 0.8 ratio requirements for habitable rooms.
  - The average change ratio for VSC is **0.87**
- **Sunlight APSH & WPSH**
  - **100%** of tested windows comply with the annual APSH and
  - **100%** with the winter WPSH requirements for sunlight or overall requirement.
  - The average change ratio for sunlight is APSH:**0.89**
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of tested neighbouring amenity spaces pass the 2-hour test requirements for the 21st March.
  - The average change ratio for shadow/sunlight is **0.97**

The potential impact of the proposed development on neighbours complies with the requirements of "Site layout planning for daylight and sunlight a guide to good practice " BR209

Development Performance

Development Performance - Target Illuminance E_T Metric

National Standards Authority of Ireland have adopted EN 17037 to directly become IS/EN 17037. There are no amendments were made to this document and no national Annex localising the same was developed as can be found in BS/EN 17037. The standard document provides only a single target for rooms new buildings and does not include specific usage targets for spaces for commercial, office and residential (living, bedroom, Kitchen).

The UK variant referenced is more suitable to use in temperate climates where the median external diffuse illuminance is low. We would concur with the UK committee that the recommendations for daylight provision in a space may not be achievable for some buildings, particularly dwellings, which are the subject of this report.

We note the reasoning put forward by the UK committee and concur with their conclusions that different room usage should be assigned different light requirements/targets. Design in Ireland quite often follows the practice and precedent set in the UK. With similar climates, light and receiving environments it is reasonable to adopt BS/EN 17037 / Annex NA which itself was derived from the now withdrawn BS 8206-2:2008 Lighting for buildings – Part 2: Code of practice for daylighting, Subclause 5.6. This provides alignment between the new and old standards and with the levels of light we are used to and deemed acceptable in new developments.

> ***Target illuminance (ET) :***
> ***Illuminance from daylight that should be achieved for at least half of annual daylight hours across a specified fraction of the reference plane in a daylit space***

NA.2 - Minimum daylight provision in UK dwellings

Even if a predominantly daylit appearance is not achievable for a room in a UK dwelling, the UK committee recommends that the target illuminance values given in Table NA.1 are exceeded over at least 50 % of the points on a reference plane 0.85 m above the floor, for at least half of the daylight hours.

Table NA.1 — Values of target illuminance for room types in UK dwellings

Room type	Target illuminance E_T (lx)
Bedroom	100
Living room	150
Kitchen	200

Derived from BS 8206-2:2008 Lighting for buildings – Part 2: Code of practice for daylighting

Where one room in a UK dwelling serves more than a single purpose, the UK committee recommends that the target illuminance is that for the room type with the highest value – for example, in a space that combines a living room and a kitchen the target illuminance is recommended to be 200 lx

It is the opinion of the UK committee that the recommendation in Clause A.2 – that a target illuminance level should be achieved across the entire (i.e. 95 %) fraction of the reference plane within a space – need not be applied to rooms in dwellings.

This is echoed in The BRE Guidelines

> ***C16 The UK National Annex gives illuminance recommendations of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens. These are the median illuminances, to be exceeded over at least 50% of the assessment points in the room for at least half of the daylight hours. The recommended levels over 95% of a reference plane need not apply to dwellings in the UK.***
>
> ***C17 Where a room has a shared use, the highest target should apply. For example in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design. The kitchen space would still need to be included in the assessment area … in rooms with a particular requirement for daylight, such as bed sitting rooms in homes for the elderly, higher values … may be taken.***

Analysis parameters are as per Annex B (and/or as revised by Annex NA), analysis method 1 was used. The following Parameters were used are within the recommended ranges and reflect the materials/finishes specified in this application. The Median External Diffuse Illuminance used is noted in the relevant results tables.

Surface	Description	Reflectance
External Plane	Earth	0.2
External Walls	Grey Render / Concrete	0.4
Floor	Light wood/ cream Carpet	0.4
Internal Wall	Cream	0.7
Ceiling	White	0.8
Frames	Medium Grey	0.5
	Transmittance	
Glazing clear	0.63 (incls. Maintenance Factor)	
Glazing Translucent	0.4 (incls. Maintenance Factor)	

Light distribution was computed by modelling the internal configuration of rooms and windows placed within the existing topography and the adjacent buildings and then running an analysis on the same. This analysis was based on a standard working plane for in this case residential of 0.850m.

Reference plane or working plane

> ***Horizontal, vertical, or inclined plane in which a visual task lies. Normally the working plane may be taken to be horizontal, 0.85 m above the floor in houses and factories, 0.7 m above the floor in offices.***

Legend for Radiance Plots

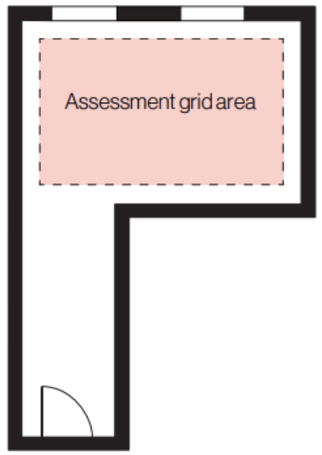
BS/En 17037 - Annex NA - lux Targets

Areas for Analysis

Typically, the full area of a room (excluding a boundary zone) should be tested, and the BRE guidelines state that professional judgement should be used in cases with irregular shaped spaces or rooms with corridor or annex areas.

Some specific examples include:

In a room with a corridor, or annexed entrance, the corridor need not be included in the assessment grid area (unless it is wide enough to be part of the usable space in a room, typically over 1.5m wide). The room layout and surfaces, including the corridor would still need to be included in the calculation model



Fixed floor to ceiling cupboards can be excluded from the room area

In a limited number of cases in this specific project the rear kitchen area is designed with units arranged in "U-shape", many full height. This area is defined as galley kitchen which opens into a well-lit living/dining room. The higher Kitchen target of 200lx is maintained to meet the "well-lit" requirement for the living / dining space.

Summary – Light Distribution all habitable rooms for all blocks.

A summary for pass results for all blocks, based BS/EN 17037 / Annex NA is detailed below.
Full details may be found in: Appendix 2 – Light Distribution – Target Illuminance

	E_T % Pass			Area Compliant	
	BRE v3	Incl Marginal		Avg. Bed	Avg. Liv
	Pass %	Pass %			
AB	93%	99%		91	64
C	94%	97%		96	72
D	94%	99%		97	70
E	100%	100%		99	73
FG	94%	99%		95	65
H	96%	99%		96	72
J	100%	100%		99	79
Total	**95%**	**99%**		**95%**	**69%**

95% of all habitable rooms are complaint.

This pass rate increases to **99%** if we include those results which are just marginal.

The average complaint areas achieving the relevant target Lx for all bedrooms is ***95%*** and all Living/Kitchen spaces ***69%*** both are well in excess of the required 50%

Light Distribution Check - Summary

91% of rooms comply with the BS/EN 17037 Annex NA room targets for 50% of the floor area tested.
(99% if we include marginal results)

The average complaint areas achieving the relevant target Lx for all bedrooms is ***95%*** and all Living/Kitchen spaces ***69%*** both are well in excess of the required 50%

The proposed development generally complies with the requirements of the BRE guidelines in relation to light distribution.

Development Performance - Sunlight to rooms (living spaces)

Clause 3.1.2 of the guidance document BRE indicates that special checks should be applied to living rooms to ensure that these core rooms receive the necessary sunlight.

> *In Housing, the main requirement for sunlight is in living rooms. where it is valued at any time of day but especially in the afternoon.*

Check Clauses

> *3.1.15 In general a dwelling, or non-domestic building that has a particular requirement for sunlight, will appear reasonably sunlit provided:*
> *- at least one main window wall faces within 90° of due south and*
> *- a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.*

> *3.1.16 Where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations*

The guidelines accept the difficulty imposed by this requirement and that it will not always be possible to achieve this requirement for ALL living spaces. While it is preferred to have sunlight the guidelines are pragmatic in this regard. The guidelines note that:

> *3.1.8……. For larger developments of flats, especially those with site constraints, it may not be possible to have every living room facing within 90° of south…….*

A view or similar may be considered a compensating factor to North facing windows

> *3.1.7 …. compensating factor such as an appealing view to the north.*

It then follows with an example of a careful layout for a relatively small block where 4/5 flats have south facing living rooms, and one North which would receive no sunlight at all. From this layout and results we can conclude that an 80% pass rate is considered careful layout design.

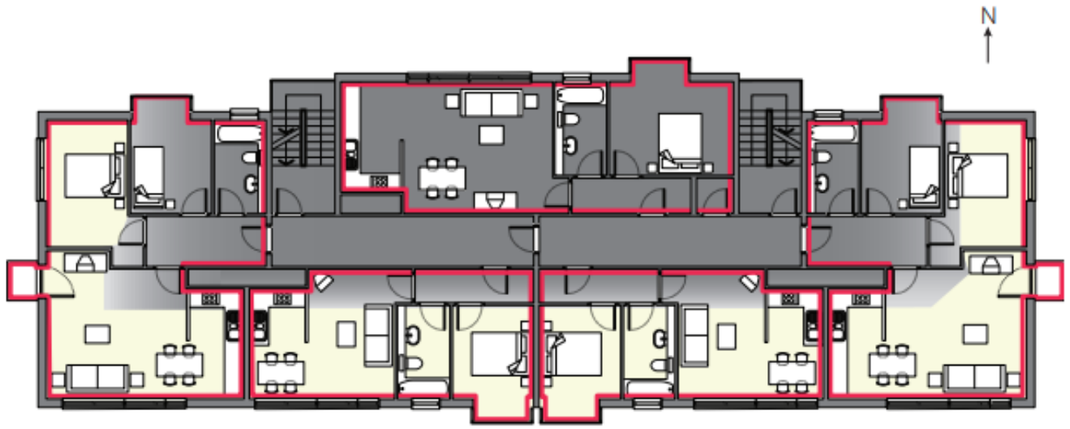


Figure 26: Careful layout design means that four out of the five flats shown have a south-facing living room

Quality of light minimum/medium/high is defined in clause 3.1.10

> *3.1.10 … For interiors, access to sunlight can be quantified. BS EN 17037 recommends that a space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1 February and 21 March with cloudless conditions. It is suggested that 21 March (equinox) be used. The medium level of recommendation is three hours and the high level of recommendation four hours. For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion. …..*

Summary – Sunlight living rooms for all blocks.

A summary for pass results for all blocks is detailed below.
Full details may be found in: Appendix 3 – Sunlight Living rooms

	Sunlight % Pass	
	BRE v3	Incl Marginal
	Pass %	Pass %
AB	95%	96%
C	98%	98%
D	98%	100%
E	100%	100%
FG	90%	94%
H	95%	97%
J	96%	98%
Total	95%	97%

Most windows receive some sunlight and the number that face North are small.
95% of living rooms are complaint (97% if we include marginals)

The BRE guidelines accept that it is not possible for all living spaces to face the sun and are pragmatic in this regard. The guidelines provide guidance in this regard with a 4/5 or 80% compliance being considered as "careful layout design".

These results are consistent with the BRE guidelines recommend pass rate for apartment developments of 80%.

Sunlight to Living rooms - Summary.

95% of all Living rooms (97% if we include marginals) receive 1.5hrs of sunlight on the test day of the 21st March
This is consistent with the BRE defined "careful layout design" 80% target.

The proposed development generally complies with the requirements of the BRE guidelines in relation to Sunlight availability and careful layout design.

Development Performance - Shadow/Sunlight - Gardens and Open spaces

Tests for the availability of sunlight in amenity areas.

Shadow/Sunlight - Clause 3.3.17

> ***It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. ……***

> ***3.3.3 The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:***
> ***• gardens, usually the main back garden of a house***
> ***• parks and playing fields***
> ***• children's playgrounds***
> ***• outdoor swimming pools and paddling pools***
> ***• sitting out areas such as those between non-domestic buildings and in public squares***
> ***• focal points for views such as a group of monuments or fountains.***

The amenities of the following properties were tested.

- 2 x Shared amenity spaces
  - AS01 & AS02
- 1 x Central Public area
  - AP01
- Appendix 3
  - looks at all private balconies

BRE 2-hour Shadow Plots

The graphic below indicates the areas which receive 2 hours of sunlight on the 21st March in accordance with the BRE guidelines.

- **Green** represents areas which exceed the 2-hour requirement - pass.
- **Red** is less than the 2-hour requirement - fail.
- **Orange** are marginal or borderline - just below the 2-hour requirement.

Proposed

The results are tabulated below:

Shadow / Sunlight Amenity				
>50% receives 2 hours of sunlight on 21st March)				
		Ref	% 2hr Sunlight	Check
	AP01	Central Public Zone	91.4	Pass
	AS01	Shared within ABCD	89.8	Pass
	AS02	Shared within FGHJ	86.3	Pass

Note: When the proposed value exceeds the minimum requirement the ratio check is not required, and the result is coloured grey.

Please note that passing the BRE requirements does not imply that shadows will not be cast over an amenity space at all. Shadows which are transient by nature may not impact on the percentage of the space which receives 2 hours of sunlight on the 21st of March.

Summary - Sunlight/Shadow Balconies for all blocks

A summary for pass results for all blocks is detailed below.

Full details may be found in: Appendix 4 - Shadow to Private Amenity Spaces (Balconies)

	Sunlight % Pass	
	BRE v3	Incl Marginal
	Pass %	Pass %
AB	95%	96%
C	98%	98%
D	98%	100%
E	100%	100%
FG	90%	94%
H	95%	97%
J	96%	98%
Total	95%	97%

Most windows receive some sunlight and the number that face North are small.

95% of living rooms are complaint (97% if we include marginals)

The BRE guidelines accept that it is not possible for all living spaces to face the sun and are pragmatic in this regard. The guidelines provide guidance in this regard with a 4/5 or 80% compliance being considered as "careful layout design".

These results are consistent with the BRE guidelines recommend pass rate for apartment developments of 80%.

Conclusion

The new 2 x shared and the 1 x public amenity spaces pass the BRE requirement relating to the area which can receive 2 hours of sunlight on the 21st of March. High percentages of 86%+ are well in excess of the required > 50%.

95% of private balconies comply with the BRE requirements.
in most cases well exceed the minimum requirement.
This is in accordance with what the guidelines define as "careful" design 80%.

The proposed development complies with the requirements of the BRE guidelines in relation to Sunlight/Shadow availability and careful layout design.

Architects' Commentary / Compensatory Measures

The Architect has provided a comprehensive examination of the design process involved in this project. It also includes details of the compensatory measures relating to specific apartments where results may fall below the BRE targets. While this full document should be reviewed some of the salient points are reproduced below.

In additional rooms which fail to achieve targets are specifically identified and compensatory items in relation to daylight and sunlight as mentioned below are tabulated.

Apartment sizes

All apartments in the scheme are well in excess of the minimum floor area as set out in the guidelines (*Sustainable Urban Housing: Design Standards for New Apartments).* For the 14no. units that fall below the daylighting minimum (excl. marginals), the floor areas exceed the minimum by an average of over 25%. In the case of the Sunlight requirements the 14no. 'fail' units (excl. marginals) falling under the 1.5hr on 21st March, average exceeding minimum floor area is 18%.

Living room sizes - areas and widths

Room sizes of non-passing rooms in Daylight analysis exceed minimum area requirements by an average of 14.5% and 5.5% in the case of Sunlight analysis. Room widths generally meet or exceed requirements in all cases.

Aspect - dual aspect/views

Over 50% of units that don't meet the Daylight or Sunlight pass level are dual aspect units, offering views and light from alternative directions in the apartments.

Communal Open Space

There is access to high quality landscaped courtyards that provide attractive communal open space to all residents. The landscape design includes a considered layout of high-quality stone paved pathways, tree planted and lawn areas, play areas, seating and outdoor table furniture and decorative shrub planting.

Excess communal open space to required

An excess of communal open space to the required quantum is available on the site. 1.4 times the required communal open space is provided in the form of the two landscaped courtyards.

Views to open space and greenery

In addition to the shared courtyards, apartments view onto the central landscaped Public Open Space, existing open space to the west and south of the site, an existing tree-lined boundary to the east and to the greenery of the proposed tree-lined Thornbury Road to the north.

Maximun Daylight Provision *for all habitable rooms*

>50% of the point on a reference plane to exceed

Summary of fail results units per block - Apt. & Room Sizes, Orientation and Aspect scheduled

unit no.	apt. type	Level/Floor	Unit Size	Apt. % > min.	Room Ref.	Room Type	Room Area (m²)	Room % > min.	Orientation	Apt. Aspect	% within Target Lux
										DA=dual	
Block AB										SA=single	
summary		Total	count		283						
			Pass		262	**93%**					
			marginal		17						
			fail		**4**						
B1.09	2-bed	Level 1	90.5	**24%**	A135C	*Living*	33.7	12%	S/W	DA	34
B1.08	2-bed	Level 1	86.3	**18%**	A138C	*Living*	30.6	2%	S/E	DA	35
B1.05	1-bed	Level 1	53.3	**18%**	A140	*Bedroom*	15.6	37%	E	SA	37
B1.07	1-bed	Level 1	61.2	**36%**	A146C	*Living*	25.4	10%	S/E	DA	32
Block C											
summary		Total	count		136						
			Pass		128	**94%**					
			marginal		4						
			fail		**4**						
C1.02	2-bed	Level 1	87	**19%**	C107	*Bedroom*	11.4	0%	N/E	DA	22
C1.06	2-bed	Level 2	87	**19%**	C212	*Bedroom*	11.4	0%	N/E	DA	33
C1.11	1-bed	Level 2	68.8	**53%**	C221C	*Living*	31.7	38%	W	SA	35
C1.14	1-bed	Level 3	61.2	**36%**	C312	*Bedroom*	11.4	0%	N/E	DA	38
Block D											
summary		Total	count		150						
			Pass		141	**94%**					
			marginal		8						
			fail		**1**						
D1.18	2-bed	Level 2	86.6	**19%**	D212C	*Living*	31.4	5%	E	SA	39
Block E											
summary		Total	count		38						
			Pass		38	**100%**					
			marginal		0						
			fail		**0**						
Block FG											
summary		Total	count		250						
			Pass		235	**94%**					
			marginal		12						
			fail		**3**						
G1.11	2-bed	Level 1	87.4	**20%**	F130C	*Living*	34.4	15%	W	SA	37
G1.09	2-bed	Level 1	84.2	**15%**	F135C	*Living*	32.4	8%	S/W	DA	39
F1.05	1-bed	Level 1	61.3	**36%**	F164	*Bedroom*	14.8	30%	W	SA	37
Block H											
summary		Total	count		164						
			Pass		158	**96%**					
			marginal		4						
			fail		**2**						
H1.04	1-bed	Level 0	59.2	**32%**	H001C	*Living*	31.3	36%	W	SA	33
H1.03	1-bed	Level 0	52.8	**17%**	H004C	*Living*	25.2	10%	W	SA	33
Block J											
summary		Total	count		138						
			Pass		138	**100%**					
			marginal		0						
			fail		**0**						

Summary

Block	% Pass	no. 'fail' rooms	marginal fail rooms	Avg. Bed	Avg. Liv.
AB	93	4	17	91	64
C	94	4	4	96	72
D	94	1	8	97	70
E	100	0	0	99	73
FG	94	3	12	95	65
H	96	2	4	96	72
J	100	0	0	99	79
av. % Pass rate	**95**	14	45	95%	69%

Sunlight Provision *for living rooms*

compliance with 1.5hr BRE test on 21st March
Summary of fail results units per block - Apt. & Room Sizes, Living Room Widths, Orientation and Aspect scheduled

unit no.	apt. type	Level/Floor	Unit Size	Apt. % > min.	Room Ref.	Living Room Area (m²)	Room % > min.	Living Room Width (m)	Width % > min.	Orientation	Aspect
											DA=dual
Block AB											SA=single
summary		Total	count		109						
			Pass		104	**95%**					
			marginal		1						
			fail		**4**						
B1.03	2-bed	Level 1	86	**18%**	A121C	30.6	2%	6	67%	N	DA
B1.14	2-bed	Level 2	86	**18%**	A221C	30.6	2%	6	67%	N	DA
B1.25	2-bed	Level 3	86.1	**18%**	A321C	30.6	2%	6	67%	N	DA
B1.32	1-bed	Level 3	55.3	**23%**	A333C	25.4	10%	3.4	3%	W	SA
Block C											
summary		Total	count		46						
			Pass		45	**98%**					
			marginal		0						
			fail		**1**						
C1.10	2-bed	Level 2	93.2	**28%**	C201C	36.1	20%	7	94%	S/E	DA
Block D											
summary		Total	count		54						
			Pass		53	**98%**					
			marginal		1						
			fail		**0**						
Block E											
summary		Total	count		38						
			Pass		38	**100%**					
			marginal		0						
			fail		**0**						
Block FG											
summary		Total	count		98						
			Pass		88	**90%**					
			marginal		4						
			fail		**6**						
G1.03	2-bed	Level 1	86.3	**18%**	F119C	31.7	6%	3.7	3%	N	DA
G1.01	1-bed	Level 1	55.3	**23%**	F126C	25.7	12%	3.4	3%	W	SA
G1.04	1-bed	Level 1	53.2	**18%**	F148C	25.6	11%	3.4	3%	E	SA
F2.02	1-bed	Level 1	46.7	**4%**	F154C	23.3	1%	3.6	9%	S	DA
G1.15	2-bed	Level 2	88.3	**21%**	F219C	31.5	5%	3.7	3%	N	DA
F1.31	2-bed	Level 3	88.4	**21%**	F316C	31.4	5%	3.7	3%	N	DA
Block H											
summary		Total	count		63						
			Pass		60	**95%**					
			marginal		1						
			fail		**2**						
H1.08	1-bed	Level 1	49.6	**10%**	H109C	23	0%	3.4	3%	E	SA
H1.18	1-bed	Level 2	55.3	**23%**	H208C	23.4	2%	3.4	3%	E	SA
Block J											
summary		Total	count		53						
			Pass		51	**96%**					
			marginal		1						
			fail		**1**						
J1.10	2-bed	Level 1	85.1	**17%**	J114C	30	0%	5	39%	W/N	DA

SUNLIGHT Summary

Block	% Pass	no. 'fail' rooms	marginal fail rooms
AB	95	4	1
C	98	1	1
D	98	1	1
E	100	0	0
FG	90	6	4
H	95	2	1
J	96	1	1
av. % Pass rate	**95**	15	9

Summary – Development Performance

This report is in compliance with: "Site layout planning for daylight and sunlight a guide to good practice" - BR209". It also references EN 17037 and Annex NA (BS/EN 17037) as and where called for in the above BRE guidance document.

Performance of the proposed design

- **Target Illuminance E_T**
  - **95%** of rooms comply with the BS/EN 17037 Annex NA room targets for 50% of the floor area tested.
  - If we include those that are marginal this increases to ***99%***
  - The average complaint areas achieving the relevant target Lx for
    - all bedrooms is **95%** and
    - all Living/Kitchen spaces **69%**
    - both are well in excess of the required 50%
- **Sunlight to Living rooms:**
  - Most windows to living rooms receive some sunlight and the number that face North are small.
  - **95%** (***97%*** if we include marginals) comply with the 1.5hr BRE test on the 21st March.
  - This is consistent with the BRE defined "careful layout design" 80% target.
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of the proposed communal & Public Amenity spaces pass the relevant requirements
  - **95%** of the private balconies (not required to be tested) would also comply.
  - The proposed development complies with the requirements of the BRE guidelines in relation to Sunlight/Shadow availability and careful layout design.

The application generally complies with the recommendations and guidelines of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice BR209 (Version 3, 2022) when considered in terms a regeneration project in an un-developed lot and the BRE "Careful Layout Design" requirements.

Overall Summary

Change/Impact to neighbouring buildings in the adjoining residential areas.

- **Skylight- VSC**
  - **100%** of the tested windows comply with the 27%, 0.8 ratio requirements for habitable rooms.
  - The average change ratio for VSC is **0.87**
- **Sunlight APSH & WPSH**
  - **100%** of tested windows comply with the annual APSH and
  - **100%** with the winter WPSH requirements for sunlight or overall requirement.
  - The average change ratio for sunlight is APSH:**0.89**
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of tested neighbouring amenity spaces pass the 2-hour test requirements for the 21st March.
  - The average change ratio for shadow/sunlight is **0.97**

Performance of the proposed design

- **Target Illuminance E_T**
  - **95%** of rooms comply with the BS/EN 17037 Annex NA room targets for 50% of the floor area tested.
  - If we include those that are marginal this increases to ***99%***
  - The average complaint areas achieving the relevant target Lx for
    - all bedrooms is **95%** and
    - all Living/Kitchen spaces **69%**
    - both are well in excess of the required 50%
- **Sunlight to Living rooms:**
  - Most windows to living rooms receive some sunlight and the number that face North are small.
  - **95%** (***97%*** if we include marginals) comply with the 1.5hr BRE test on the 21st March.
  - This is consistent with the BRE defined "careful layout design" 80% target.
- **Sunlight on the Ground SOG (Shadow)**
  - **100%** of the proposed communal & Public Amenity spaces pass the relevant requirements
  - **95%** of the private balconies (not required to be tested) would also comply.
  - The proposed development complies with the requirements of the BRE guidelines in relation to Sunlight/Shadow availability and careful layout design.

The application generally complies with the recommendations and guidelines of Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice BR209 (Version 3, 2022) when considered in terms a regeneration project in an un-developed lot and the BRE "Careful Layout Design" requirements.

CARRIED TO THE EXECUTIVE SUMMARY

Appendix 1
Analysis Room Numbering

The following room naming convention shall be used for the purposes of the analysis.

Only floors with residential units are presented.

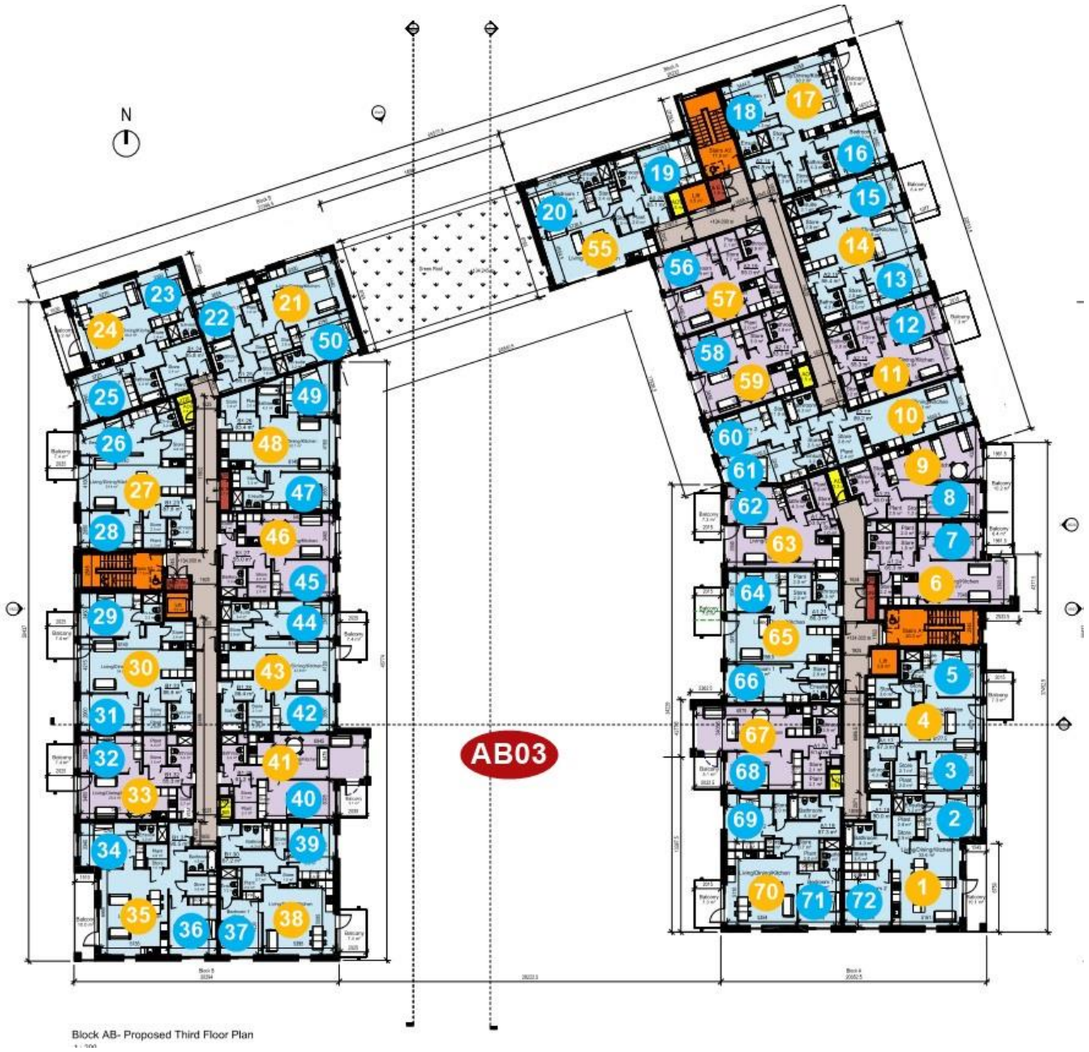
Block AB 1st Floor

Block AB- Proposed First Floor Plan
1 : 200

Block AB 2nd Floor

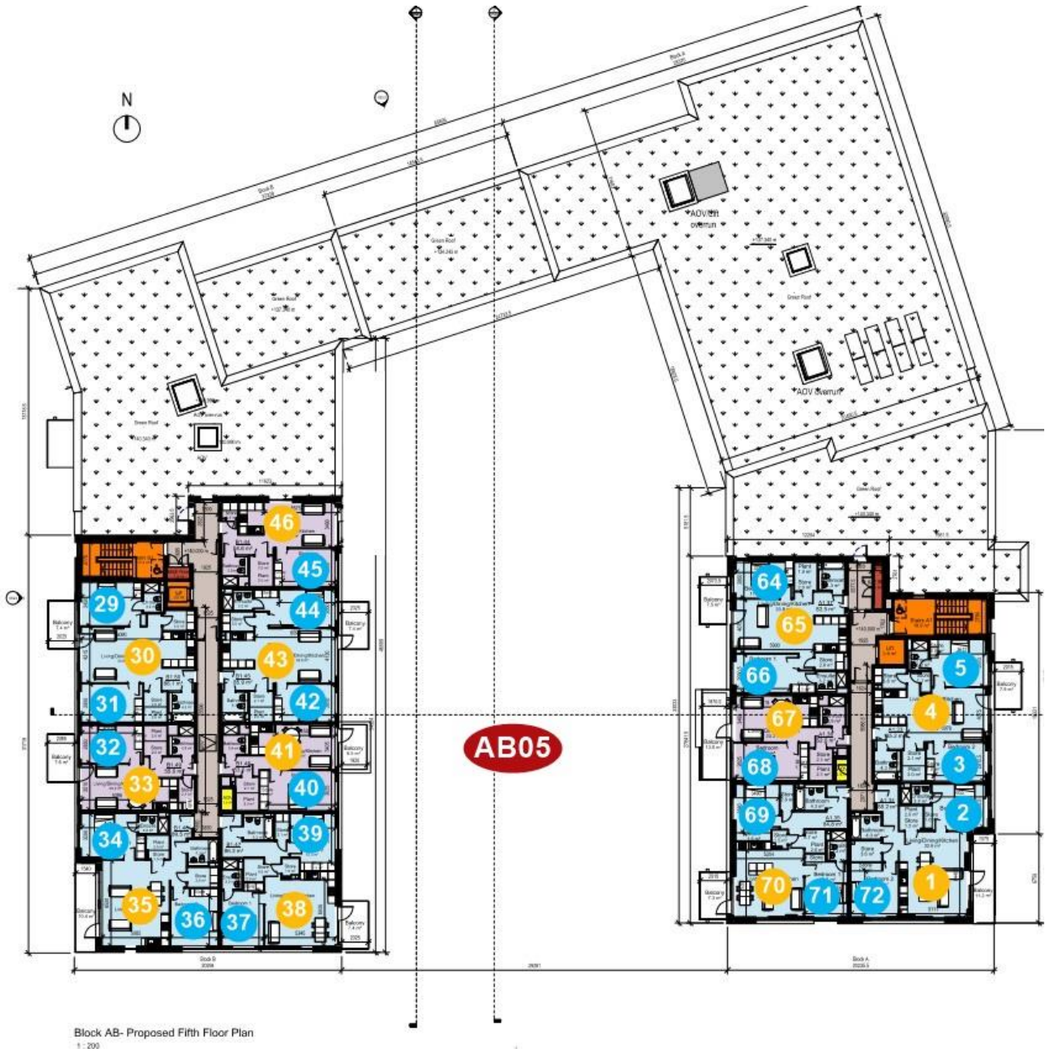
Block AB- Proposed Second Floor Plan
1 : 200

Block AB 3rd Floor

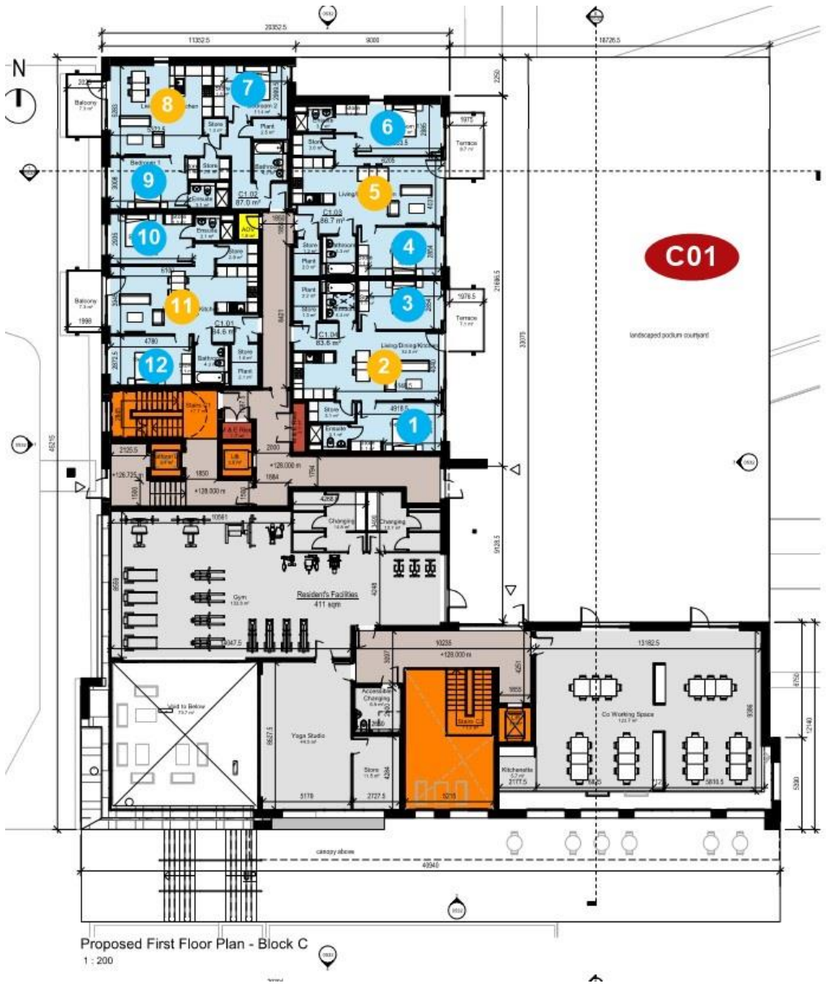


Block AB 4th Floor

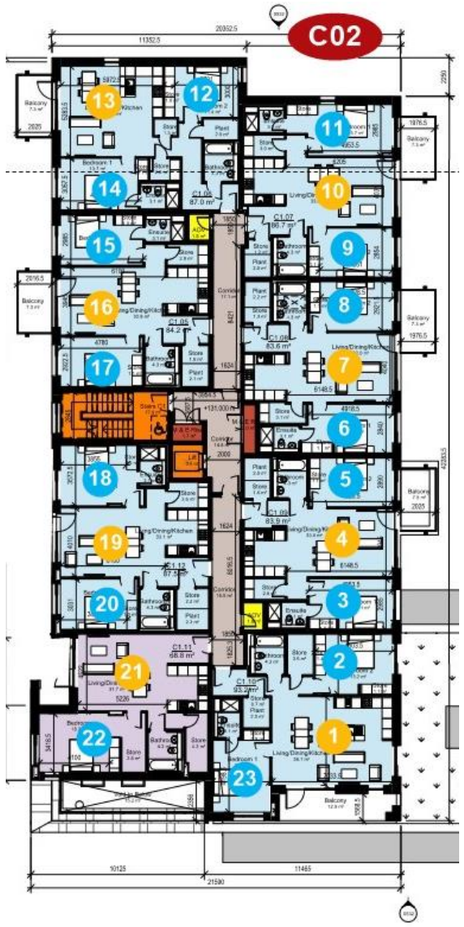
Block AB 5th Floor



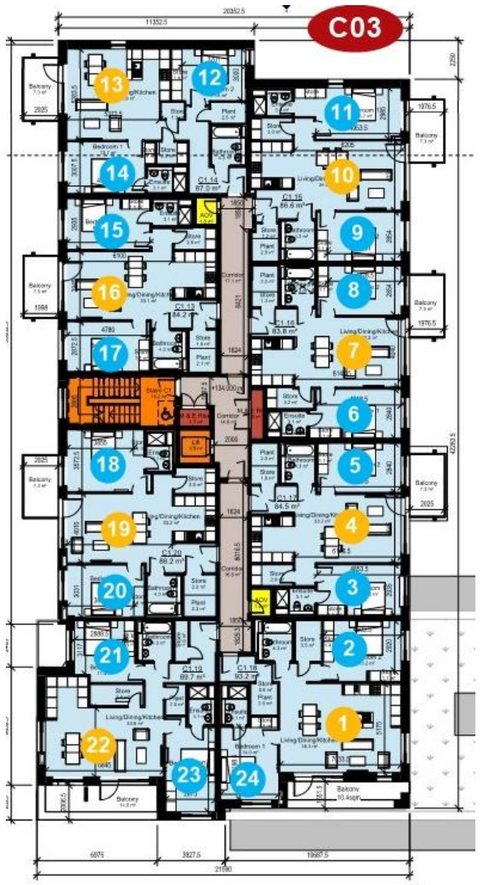
Block C 1st Floor



Block C 2nd & 3rd Floors

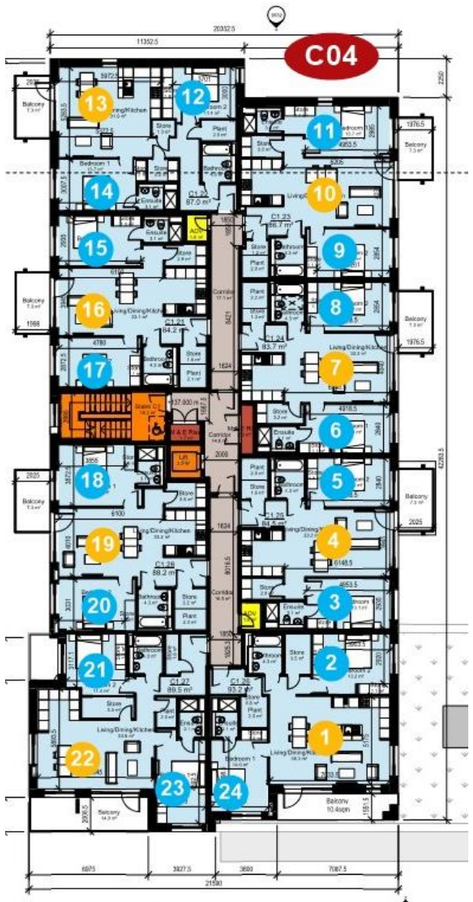


Proposed Second Floor Plan - Block C
1 : 200

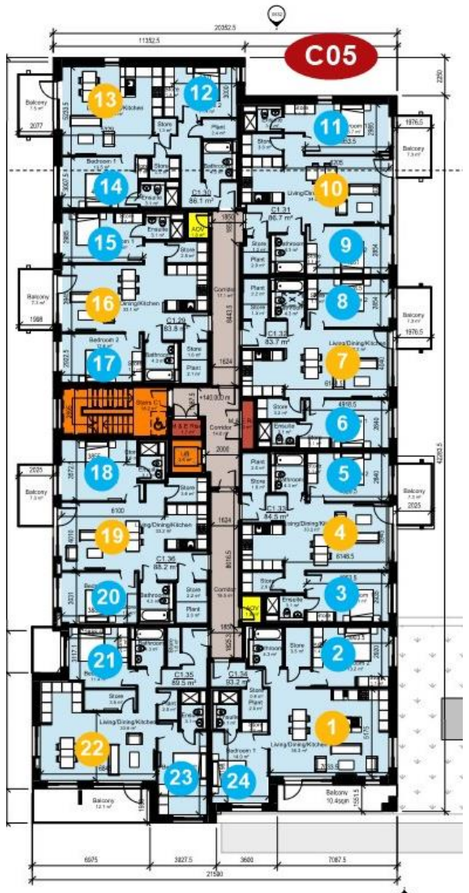


Proposed Third Floor Plan - Block C
1 : 200

Block C 4th & 5th Floors



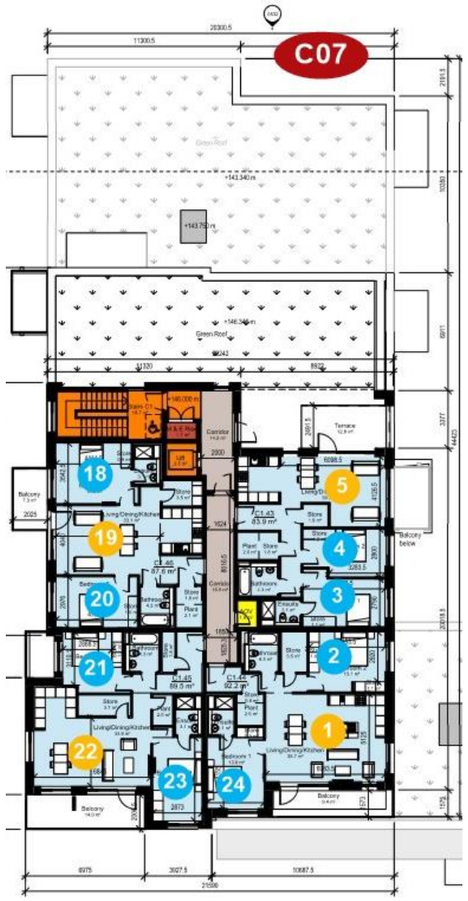
Proposed Fourth Floor Plan - Block C
1 : 200



Proposed Fifth Floor Plan - Block C
1 : 200

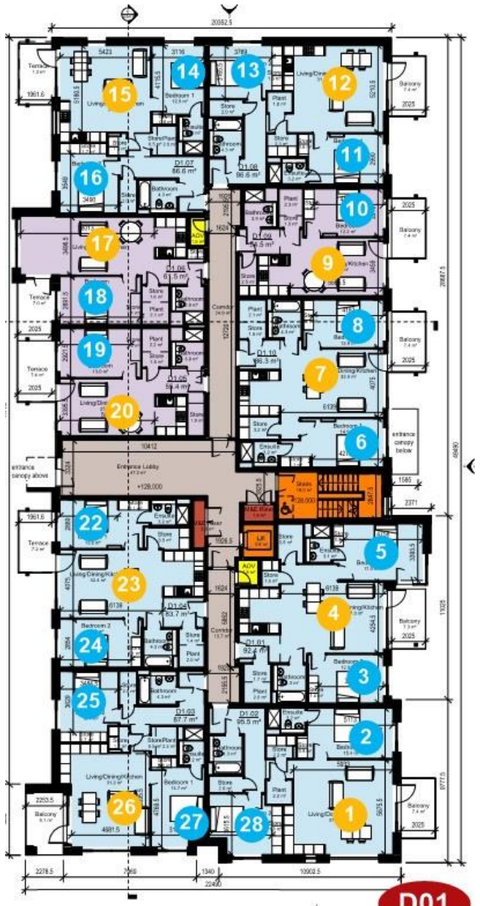
Block C 6th & 7th Floors

Proposed Sixth Floor Plan - Block C
1 : 200

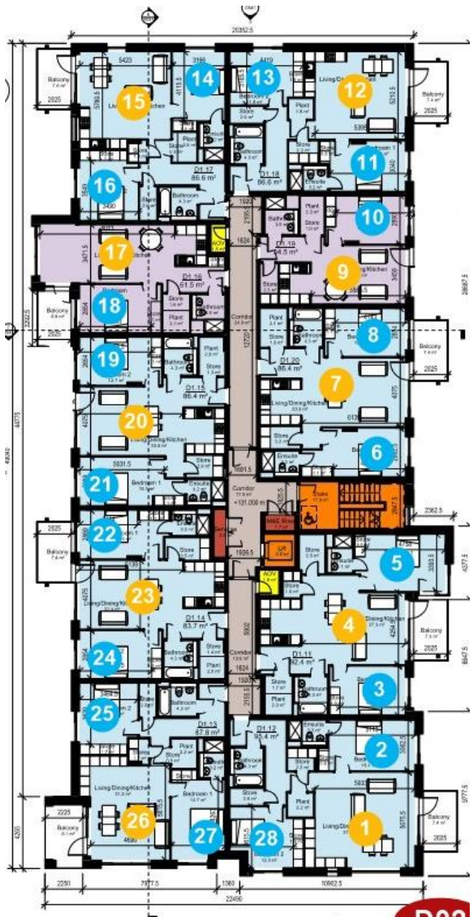


Proposed Seventh Floor Plan - Block C
1 : 200

Block D 1st & 2nd Floors

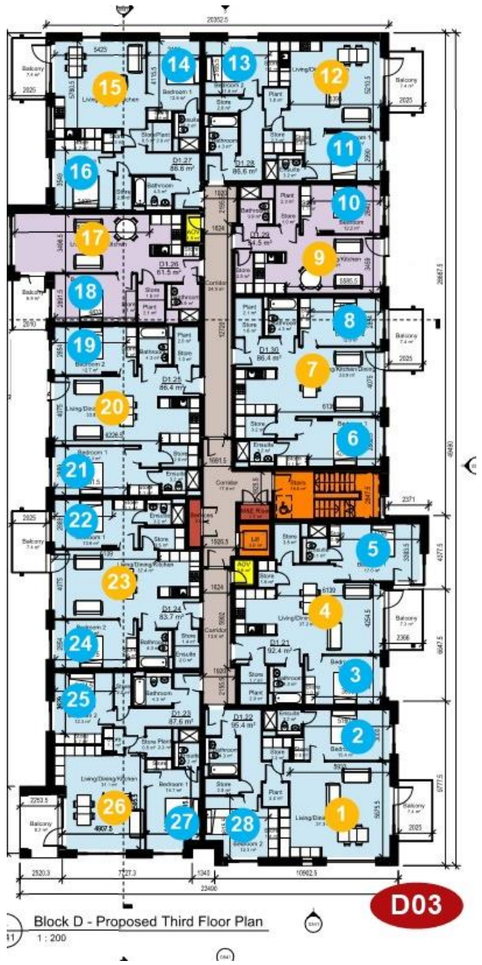


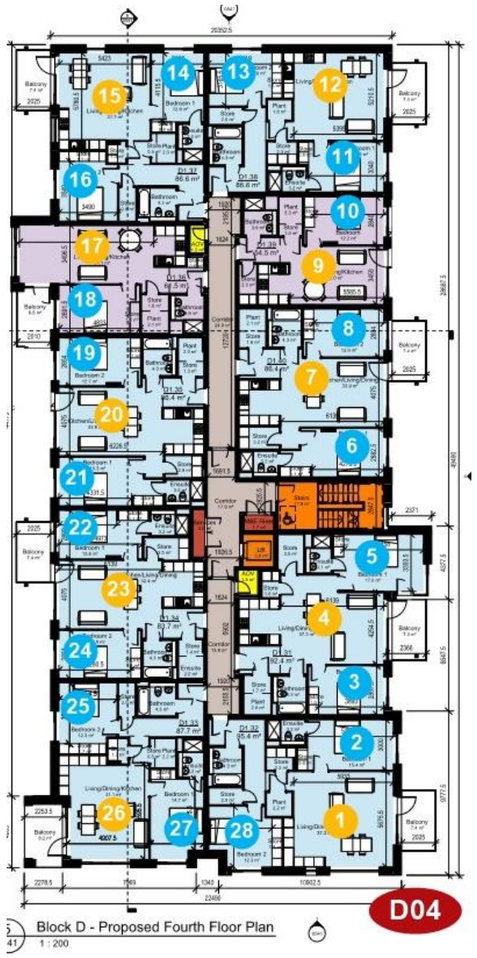
Block D - Proposed First Floor Plan
1 : 200



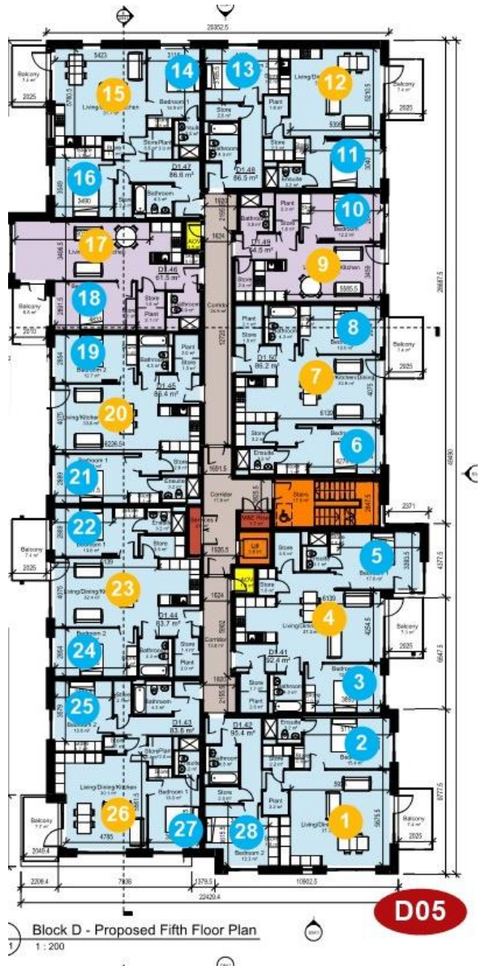
Block D - Proposed Second Floor Plan
1 : 200

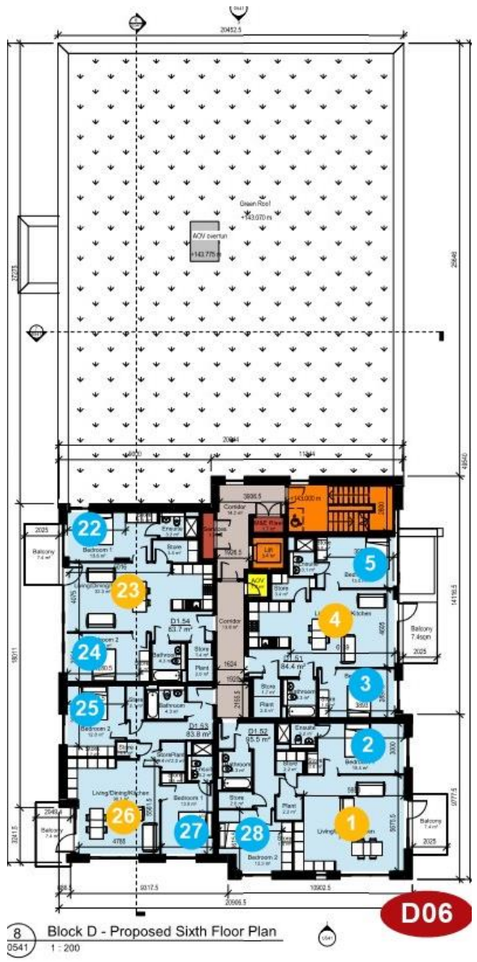
Block D 3rd & 4th Floors



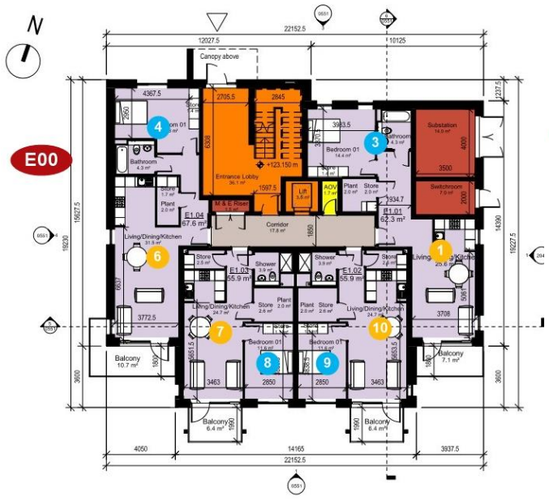


Block D 5th & 6th Floors



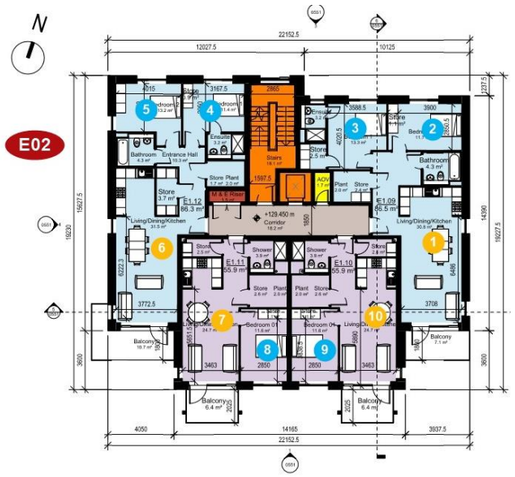


Block E – GFL & 1st Floors & 2nd & 3rd Floors

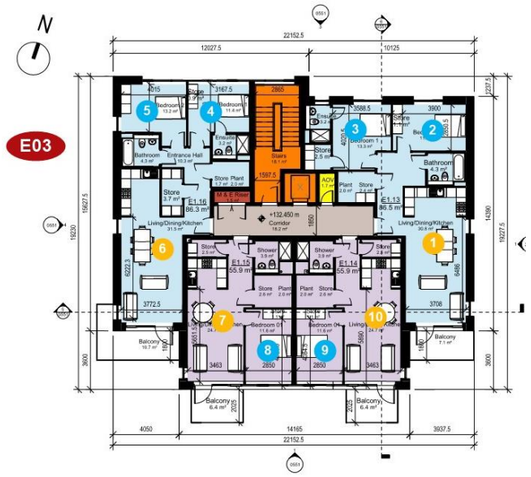


Bk E - Ground Floor Plan
1 : 200

Bk E - First Floor Plan
1 : 200



Bk E - Second Floor Plan
1 : 200



Bk E - Third Floor plan
1 : 200

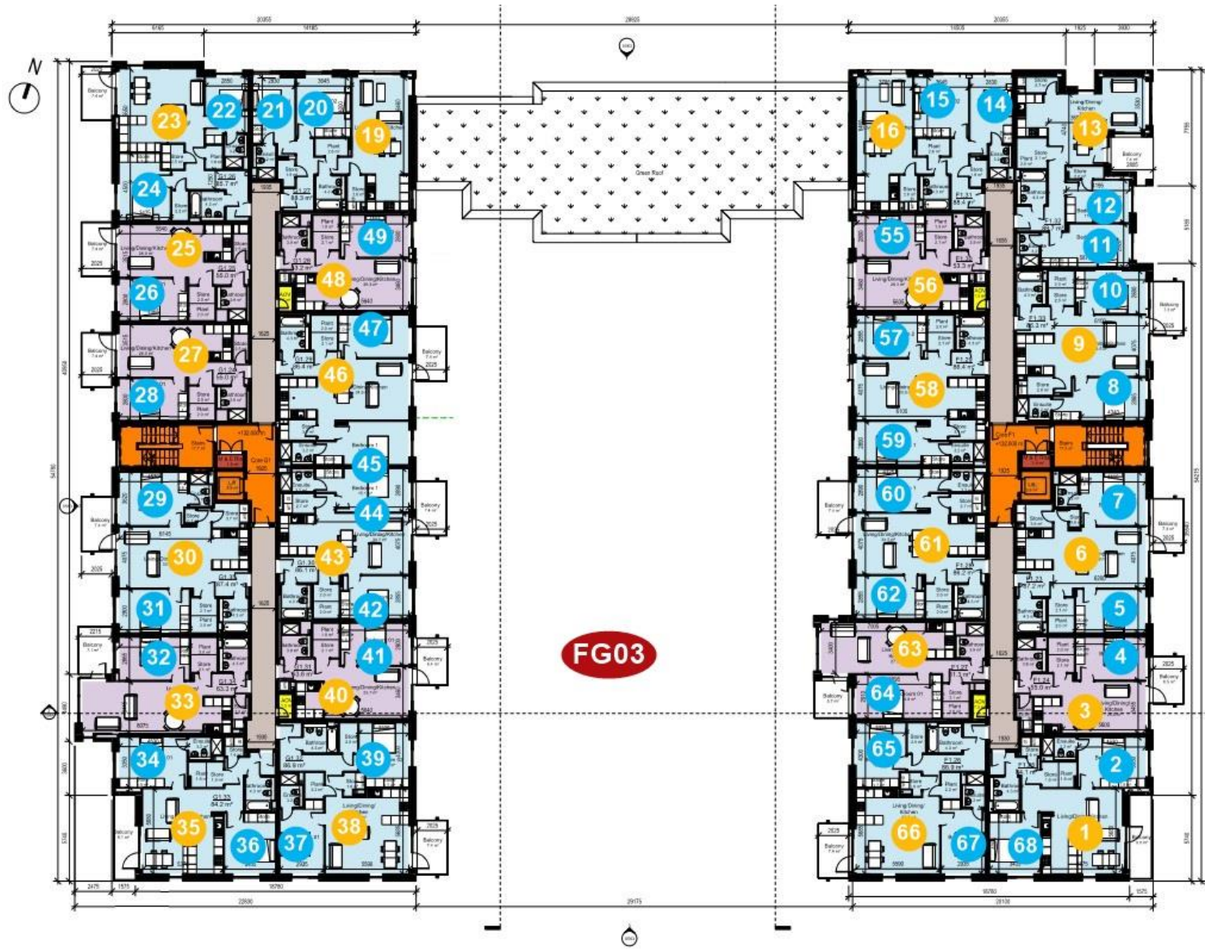
Block FG 1st Floor

1 Block FG - Proposed First Floor Plan
1 : 200

Block FG 2nd Floor

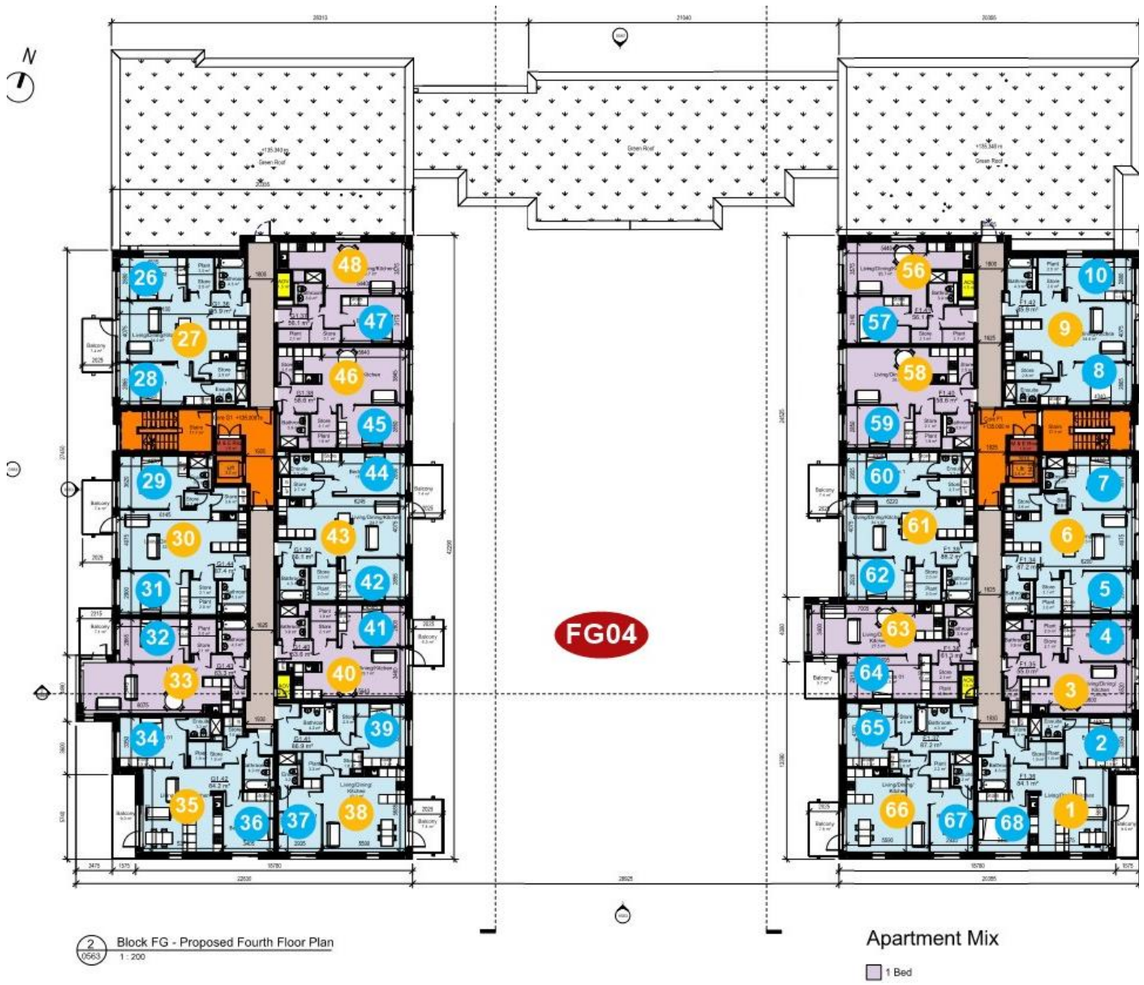
2 0563 Block FG - Proposed Second Floor Plan
1 : 200

Block FG 3rd Floor

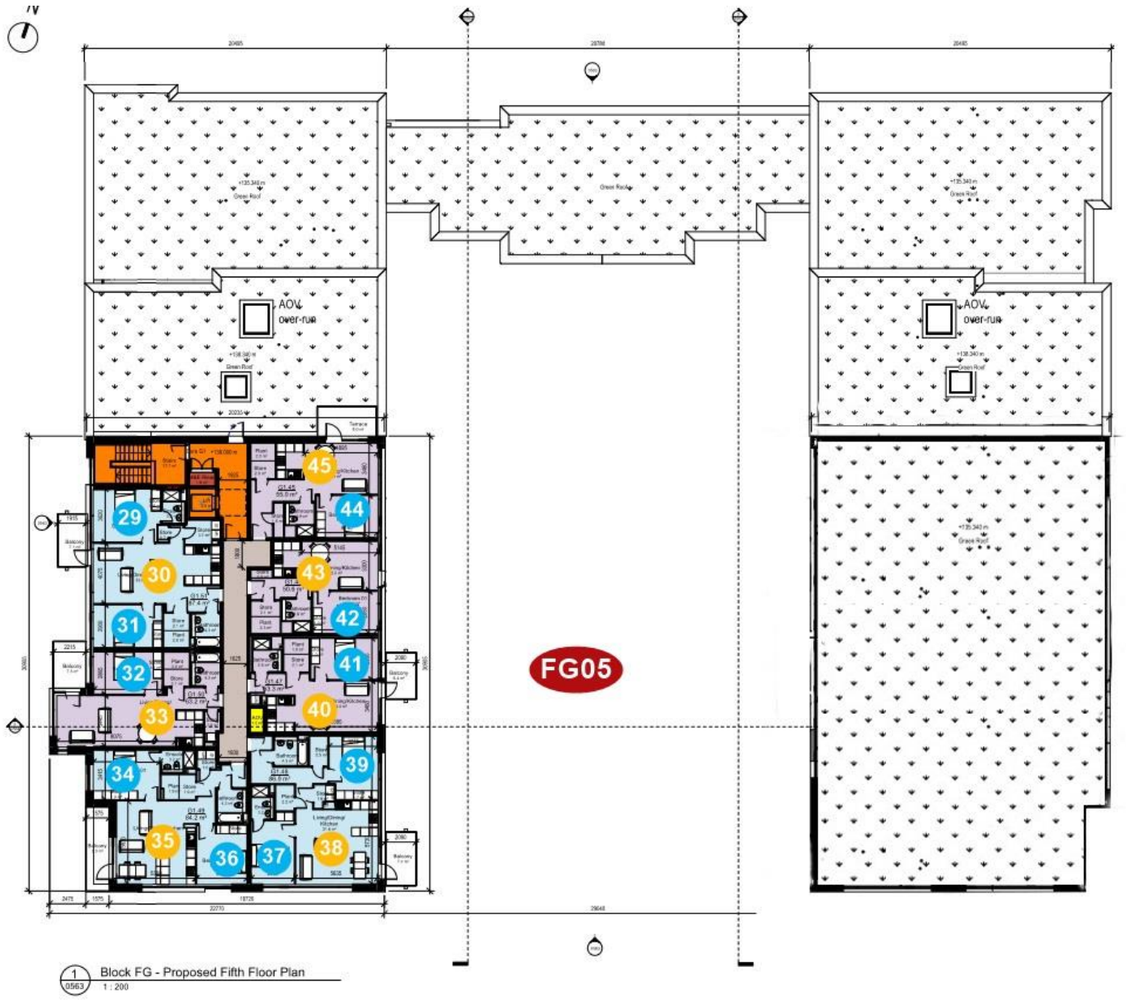


1 0563 Block FG - Proposed Third Floor Plan
1 : 200

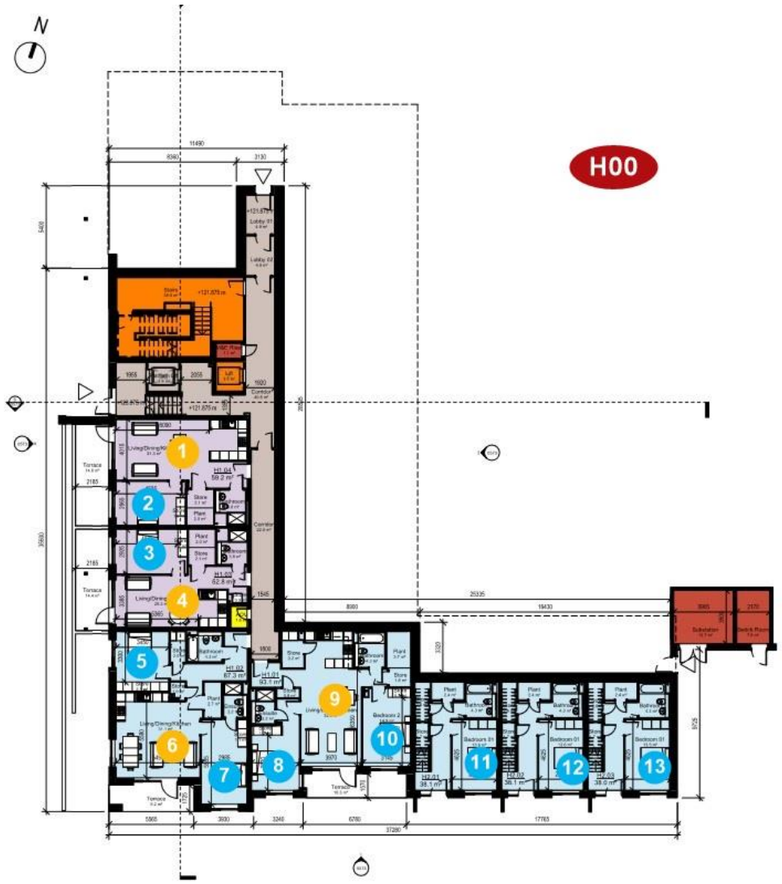
Block FG 4th Floor



Block FG 5th Floor



Block H GFL Floor



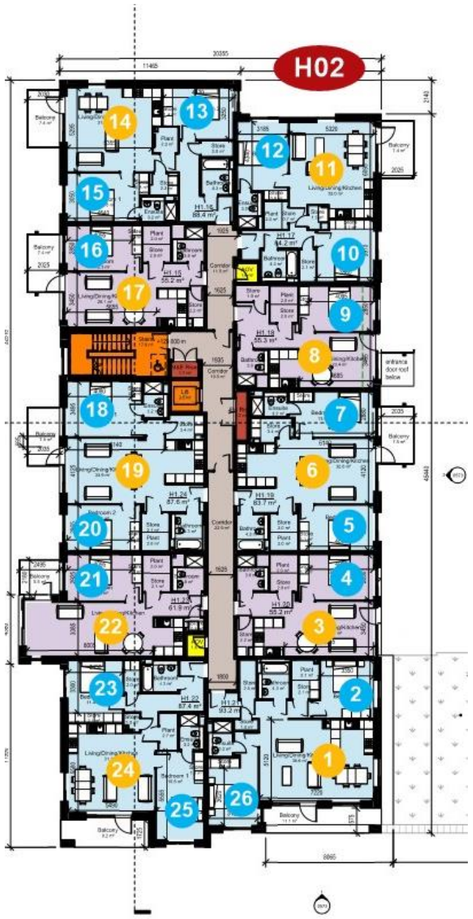
Building H - Proposed Ground Floor Plan
1 : 200

Apartment Mix

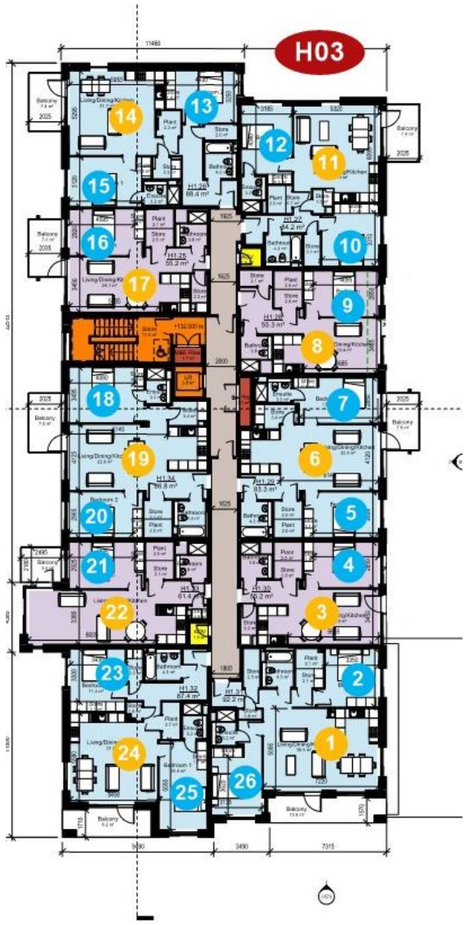
Block H 1st Floor

Building H - Proposed First Floor Plan
1 : 200

Block H 2nd & 3rd Floors

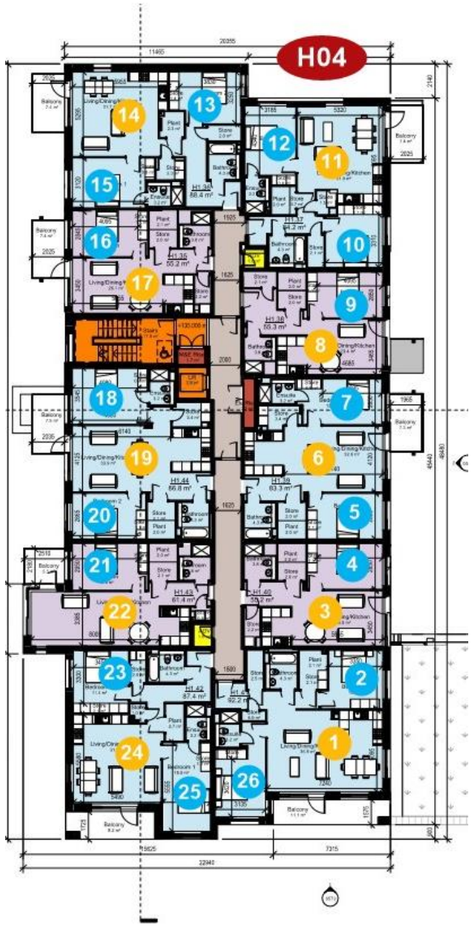


Building H - Proposed Second Floor Plan
1 : 200



Building H - Proposed Third Floor Plan
1 : 200

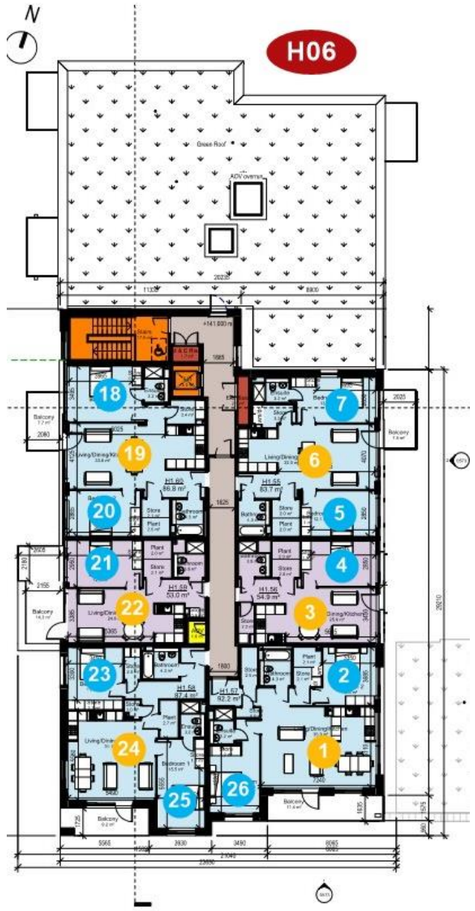
Block H 4th & 5th Floors



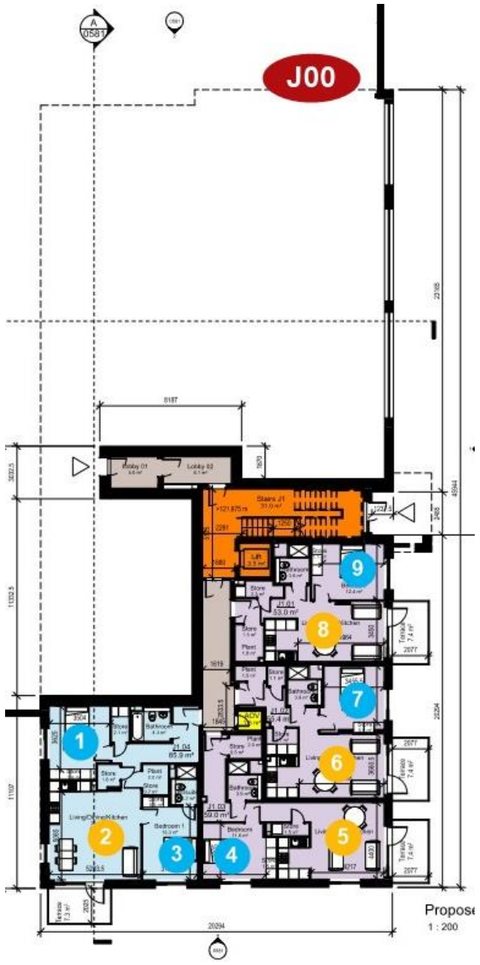
Building H - Proposed Fourth Floor Plan
1 : 200

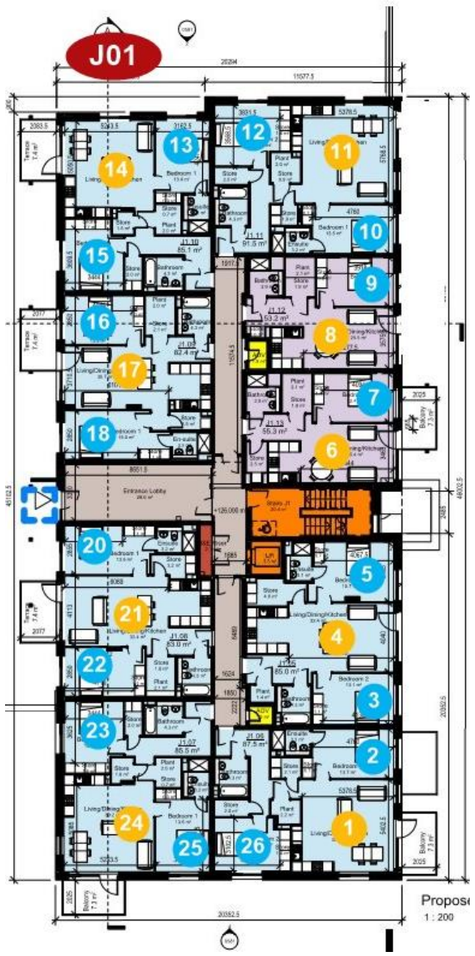
Building H - Proposed Fifth Floor Plan
1 : 200

Block H 6th Floor

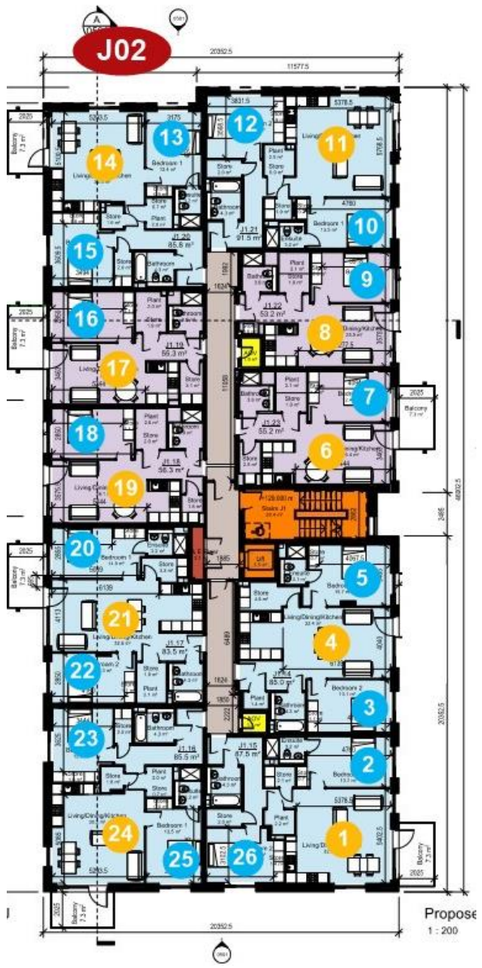


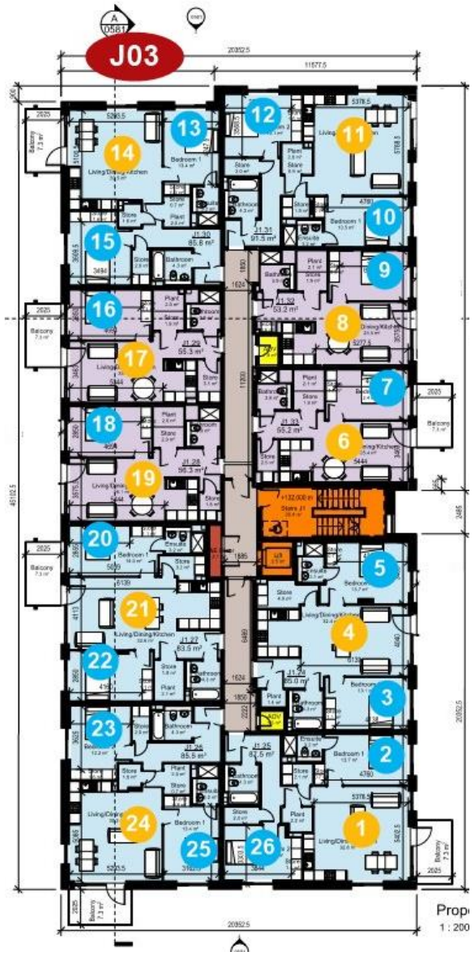
Block J GFL & 1st Floors



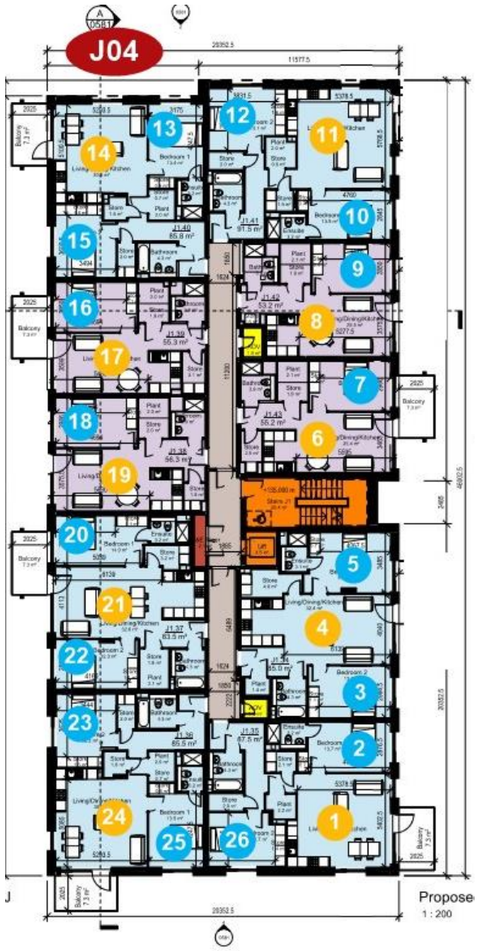


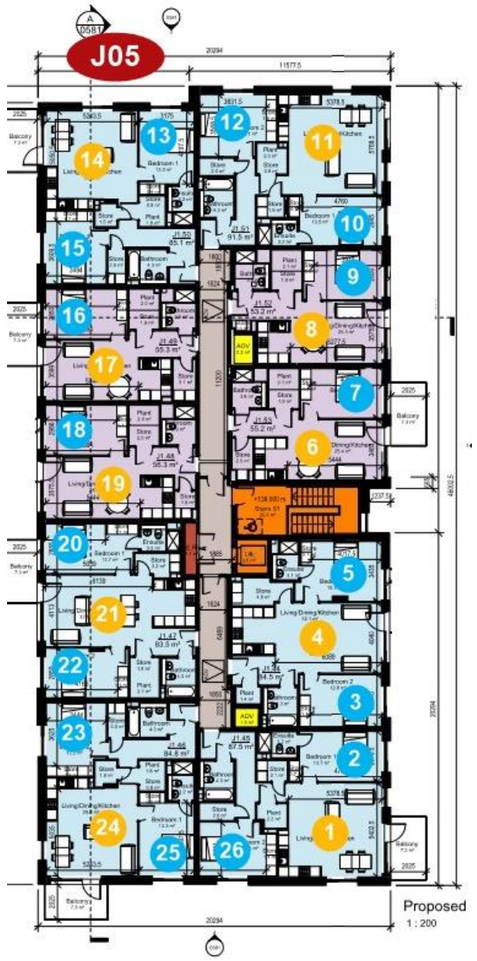
Block J 2nd & 3rd Floors





Block J 4th & 5th Floors





Appendix 2
Light Distribution
Target Illuminance ET Metric

Light analysis results are presented on a block-by-block basis below.

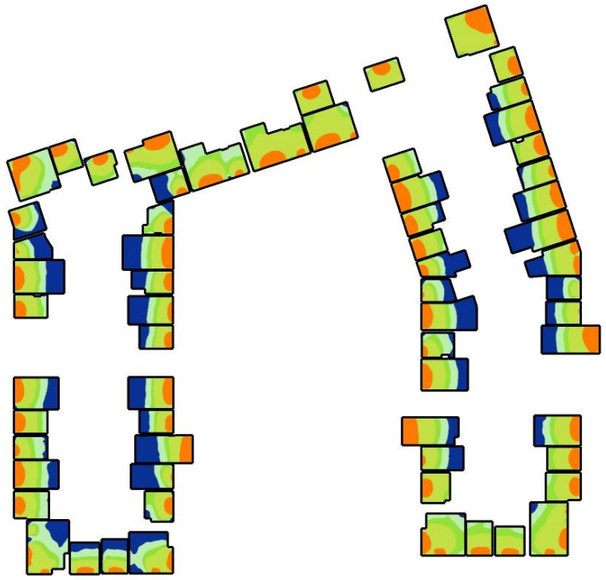
Radiant plots are also provided to show light distribution.

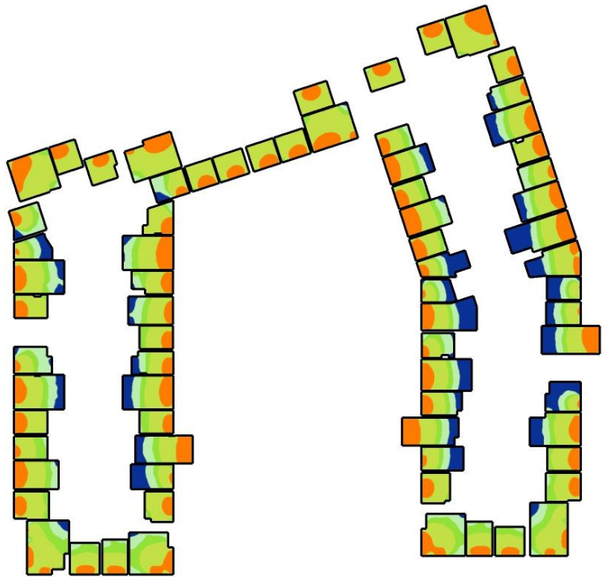
Legend for Radiance Plots

Only floors with residential units are presented.

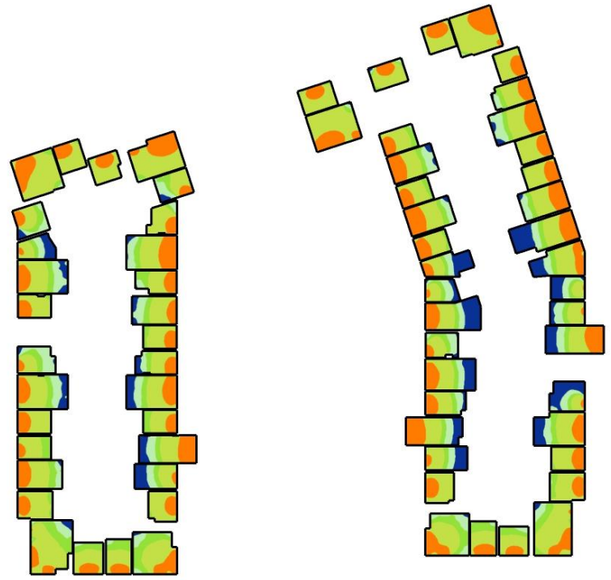
THE SUMMARY OF RESULTS FOR THIS APPENDIX IS TRANSFERRED TO MAIN BODY OF THE REPORT.

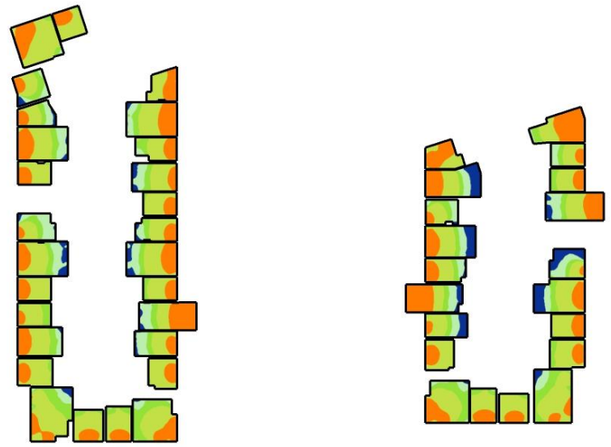
Block AB – Radiance Plots 1st & 2nd



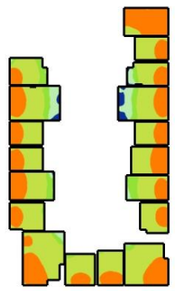


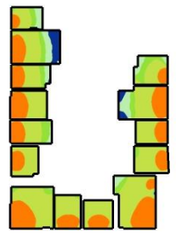
Block AB – Radiance Plots 3rd & 4th





Block AB – Radiance Plots 5th





The naming convention for rooms follows the following convention:

[Blockref] [Floor] [RoomNr] optional [C] for combined living room/Kitchen.

Note: Block references AB & FG shortened to A & F

- So A125C =
  - Block AB
  - Floor 1
  - Room 25 (a combined living room with kitchen)

Block AB – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A101C	Living/Kitchen	62	200	Pass
A102	Bedroom	100	100	Pass
A103	Bedroom	100	100	Pass
A104C	Living/Kitchen	55	200	Pass
A106C	Living/Kitchen	53	200	Pass
A107	Bedroom	72	100	Pass
A108	Bedroom	48	100	Marginal
A109C	Living/Kitchen	56	200	Pass
A110C	Living/Kitchen	45	200	Marginal
A111C	Living/Kitchen	56	200	Pass
A112	Bedroom	91	100	Pass
A113	Bedroom	99	100	Pass
A114C	Living/Kitchen	51	200	Pass
A115	Bedroom	85	100	Pass
A116	Bedroom	100	100	Pass
A117C	Living/Kitchen	96	200	Pass
A119	Bedroom	100	100	Pass
A120	Bedroom	100	100	Pass
A121C	Living/Kitchen	64	200	Pass
A122	Bedroom	93	100	Pass
A123	Bedroom	99	100	Pass
A124c	Living/Kitchen	54	200	Pass
A125	Bedroom	63	100	Pass
A126	Bedroom	43	100	Marginal
A127c	Living/Kitchen	41	200	Marginal
A128	Bedroom	99	100	Pass
A130C	Living/Kitchen	40	200	Marginal
A131	Bedroom	100	100	Pass
A132	Bedroom	82	100	Pass
A133C	Living/Kitchen	49	200	Marginal
A134	Bedroom	97	100	Pass
A135C	Living/Kitchen	34	200	Fail
A136	Bedroom	72	100	Pass
A137	Bedroom	63	100	Pass
A138C	Living/Kitchen	35	200	Fail
A139	Bedroom	93	100	Pass
A140	Bedroom	37	100	Fail

NA.2 Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A141C	Living/Kitchen	40	200	Marginal
A142	Bedroom	68	100	Pass
A143C	Living/Kitchen	45	200	Marginal
A145	Bedroom	74	100	Pass
A146C	Living/Kitchen	32	200	Fail
A147	Bedroom	70	100	Pass
A148C	Living/Kitchen	44	200	Marginal
A149	Bedroom	83	100	Pass
A150	Bedroom	53	100	Pass
A151C	Living/Kitchen	44	200	Marginal
A153C	Living/Kitchen	78	200	Pass
A155C	Living/Kitchen	84	200	Pass
A157	Bedroom	99	100	Pass
A158C	Living/Kitchen	57	200	Pass
A159	Bedroom	84	100	Pass
A160	Bedroom	100	100	Pass
A161	Bedroom	53	100	Pass
A162	Bedroom	61	100	Pass
A163C	Living/Kitchen	41	200	Marginal
A164	Bedroom	86	100	Pass
A165C	Living/Kitchen	49	200	Marginal
A167C	Living/Kitchen	58	200	Pass
A168	Bedroom	62	100	Pass
A169	Bedroom	100	100	Pass
A170C	Living/Kitchen	53	200	Pass
A171	Bedroom	98	100	Pass
A172	Bedroom	99	100	Pass
A201C	Living/Kitchen	55	200	Pass
A202	Bedroom	100	100	Pass
A203	Bedroom	100	100	Pass
A204C	Living/Kitchen	52	200	Pass
A205	Bedroom	45	100	Marginal
A206C	Living/Kitchen	55	200	Pass
A207	Bedroom	77	100	Pass
A208	Bedroom	49	100	Marginal
A209C	Living/Kitchen	58	200	Pass
A210C	Living/Kitchen	49	200	Marginal
A211C	Living/Kitchen	58	200	Pass
A212	Bedroom	99	100	Pass
A213	Bedroom	99	100	Pass
A214C	Living/Kitchen	53	200	Pass
A215	Bedroom	88	100	Pass
A216	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A217C	Living/Kitchen	98	200	Pass
A218	Bedroom	100	100	Pass
A219	Bedroom	100	100	Pass
A220	Bedroom	100	100	Pass
A221C	Living/Kitchen	92	200	Pass
A222	Bedroom	100	100	Pass
A223	Bedroom	100	100	Pass
A224C	Living/Kitchen	92	200	Pass
A225	Bedroom	92	100	Pass
A226	Bedroom	64	100	Pass
A227C	Living/Kitchen	56	200	Pass
A228	Bedroom	100	100	Pass
A229	Bedroom	95	100	Pass
A230C	Living/Kitchen	52	200	Pass
A231	Bedroom	100	100	Pass
A232	Bedroom	100	100	Pass
A233C	Living/Kitchen	68	200	Pass
A234	Bedroom	100	100	Pass
A235C	Living/Kitchen	59	200	Pass
A236	Bedroom	100	100	Pass
A237	Bedroom	99	100	Pass
A238C	Living/Kitchen	52	200	Pass
A239	Bedroom	100	100	Pass
A240	Bedroom	61	100	Pass
A241C	Living/Kitchen	59	200	Pass
A242	Bedroom	100	100	Pass
A243C	Living/Kitchen	54	200	Pass
A244	Bedroom	86	100	Pass
A245	Bedroom	100	100	Pass
A246C	Living/Kitchen	52	200	Pass
A247	Bedroom	98	100	Pass
A248C	Living/Kitchen	68	200	Pass
A249	Bedroom	99	100	Pass
A250	Bedroom	87	100	Pass
A251	Bedroom	100	100	Pass
A252	Bedroom	100	100	Pass
A253	Bedroom	100	100	Pass
A254	Bedroom	100	100	Pass
A255C	Living/Kitchen	91	200	Pass
A256	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A257C	Living/Kitchen	58	200	Pass
A258	Bedroom	100	100	Pass
A259C	Living/Kitchen	68	200	Pass
A260	Bedroom	100	100	Pass
A261	Bedroom	55	100	Pass
A262	Bedroom	68	100	Pass
A263C	Living/Kitchen	44	200	Marginal
A264	Bedroom	92	100	Pass
A265C	Living/Kitchen	52	200	Pass
A266	Bedroom	86	100	Pass
A267C	Living/Kitchen	60	200	Pass
A268	Bedroom	64	100	Pass
A269	Bedroom	100	100	Pass
A270C	Living/Kitchen	52	200	Pass
A271	Bedroom	99	100	Pass
A272	Bedroom	100	100	Pass
A301C	Living/Kitchen	72	200	Pass
A302	Bedroom	100	100	Pass
A303	Bedroom	100	100	Pass
A304C	Living/Kitchen	56	200	Pass
A305	Bedroom	49	100	Marginal
A306C	Living/Kitchen	60	200	Pass
A307	Bedroom	86	100	Pass
A308	Bedroom	63	100	Pass
A309C	Living/Kitchen	62	200	Pass
A310C	Living/Kitchen	52	200	Pass
A311C	Living/Kitchen	73	200	Pass
A312	Bedroom	100	100	Pass
A313	Bedroom	100	100	Pass
A314C	Living/Kitchen	66	200	Pass
A315	Bedroom	96	100	Pass
A316	Bedroom	100	100	Pass
A317C	Living/Kitchen	98	200	Pass
A318	Bedroom	100	100	Pass
A319	Bedroom	97	100	Pass
A320	Bedroom	100	100	Pass
A321C	Living/Kitchen	96	200	Pass
A322	Bedroom	100	100	Pass
A323	Bedroom	100	100	Pass
A324C	Living/Kitchen	91	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A325	Bedroom	93	100	Pass
A326	Bedroom	64	100	Pass
A327C	Living/Kitchen	59	200	Pass
A328	Bedroom	100	100	Pass
A329	Bedroom	95	100	Pass
A330C	Living/Kitchen	57	200	Pass
A331	Bedroom	100	100	Pass
A332	Bedroom	100	100	Pass
A333C	Living/Kitchen	69	200	Pass
A334	Bedroom	100	100	Pass
A335C	Living/Kitchen	63	200	Pass
A336	Bedroom	100	100	Pass
A337	Bedroom	100	100	Pass
A338C	Living/Kitchen	58	200	Pass
A339	Bedroom	100	100	Pass
A340	Bedroom	71	100	Pass
A341C	Living/Kitchen	61	200	Pass
A342	Bedroom	100	100	Pass
A343C	Living/Kitchen	60	200	Pass
A344	Bedroom	86	100	Pass
A345	Bedroom	100	100	Pass
A346C	Living/Kitchen	59	200	Pass
A347	Bedroom	98	100	Pass
A348C	Living/Kitchen	69	200	Pass
A349	Bedroom	99	100	Pass
A350	Bedroom	93	100	Pass
A355C	Living/Kitchen	95	200	Pass
A356	Bedroom	100	100	Pass
A357C	Living/Kitchen	67	200	Pass
A358	Bedroom	100	100	Pass
A359C	Living/Kitchen	75	200	Pass
A360	Bedroom	100	100	Pass
A361	Bedroom	63	100	Pass
A362	Bedroom	85	100	Pass
A363C	Living/Kitchen	50	200	Pass
A364	Bedroom	97	100	Pass
A365C	Living/Kitchen	54	200	Pass
A366	Bedroom	92	100	Pass
A367C	Living/Kitchen	64	200	Pass
A368	Bedroom	71	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

AB Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A369	Bedroom	100	100	Pass
A370C	Living/Kitchen	56	200	Pass
A371	Bedroom	100	100	Pass
A372	Bedroom	99	100	Pass
A401C	Living/Kitchen	62	200	Pass
A402	Bedroom	100	100	Pass
A403	Bedroom	100	100	Pass
A404C	Living/Kitchen	56	200	Pass
A405	Bedroom	62	100	Pass
A406C	Living/Kitchen	65	200	Pass
A407	Bedroom	100	100	Pass
A408	Bedroom	100	100	Pass
A409C	Living/Kitchen	88	200	Pass
A423	Bedroom	100	100	Pass
A424C	Living/Kitchen	93	200	Pass
A425	Bedroom	95	100	Pass
A426	Bedroom	96	100	Pass
A427C	Living/Kitchen	69	200	Pass
A428	Bedroom	100	100	Pass
A429	Bedroom	96	100	Pass
A430C	Living/Kitchen	56	200	Pass
A431	Bedroom	100	100	Pass
A432	Bedroom	100	100	Pass
A433C	Living/Kitchen	70	200	Pass
A434	Bedroom	100	100	Pass
A435C	Living/Kitchen	65	200	Pass
A436	Bedroom	100	100	Pass
A437	Bedroom	100	100	Pass
A438C	Living/Kitchen	60	200	Pass
A439	Bedroom	100	100	Pass
A440	Bedroom	89	100	Pass
A441C	Living/Kitchen	67	200	Pass
A442	Bedroom	100	100	Pass
A443C	Living/Kitchen	62	200	Pass
A444	Bedroom	94	100	Pass
A445	Bedroom	100	100	Pass
A446C	Living/Kitchen	56	200	Pass
A447	Bedroom	99	100	Pass
A448C	Living/Kitchen	75	200	Pass
A449	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

AB Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A462	Bedroom	100	100	Pass
A463C	Living/Kitchen	57	200	Pass
A464	Bedroom	98	100	Pass
A465C	Living/Kitchen	59	200	Pass
A466	Bedroom	95	100	Pass
A467C	Living/Kitchen	66	200	Pass
A468	Bedroom	79	100	Pass
A469	Bedroom	100	100	Pass
A470C	Living/Kitchen	62	200	Pass
A471	Bedroom	100	100	Pass
A472	Bedroom	100	100	Pass
A501C	Living/Kitchen	89	200	Pass
A502	Bedroom	100	100	Pass
A503	Bedroom	100	100	Pass
A504C	Living/Kitchen	71	200	Pass
A505	Bedroom	99	100	Pass
A529	Bedroom	100	100	Pass
A530C	Living/Kitchen	68	200	Pass
A531	Bedroom	100	100	Pass
A532	Bedroom	100	100	Pass
A533C	Living/Kitchen	84	200	Pass
A534	Bedroom	100	100	Pass
A535C	Living/Kitchen	94	200	Pass
A536	Bedroom	100	100	Pass
A537	Bedroom	100	100	Pass
A538C	Living/Kitchen	96	200	Pass
A539	Bedroom	100	100	Pass
A540	Bedroom	100	100	Pass
A541C	Living/Kitchen	97	200	Pass
A542	Bedroom	100	100	Pass
A543C	Living/Kitchen	62	200	Pass
A544	Bedroom	95	100	Pass
A545	Bedroom	100	100	Pass
A546C	Living/Kitchen	100	200	Pass
A564	Bedroom	99	100	Pass
A565C	Living/Kitchen	58	200	Pass
A566	Bedroom	98	100	Pass
A567C	Living/Kitchen	97	200	Pass
A568	Bedroom	100	100	Pass
A569	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

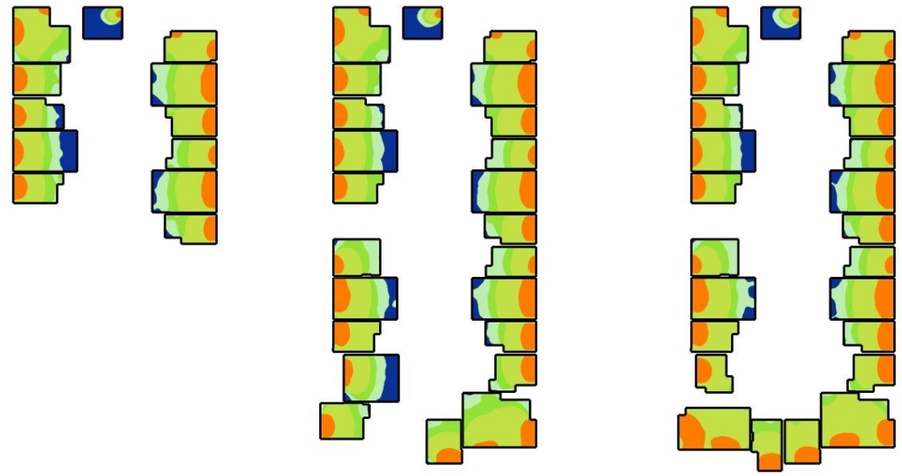
For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

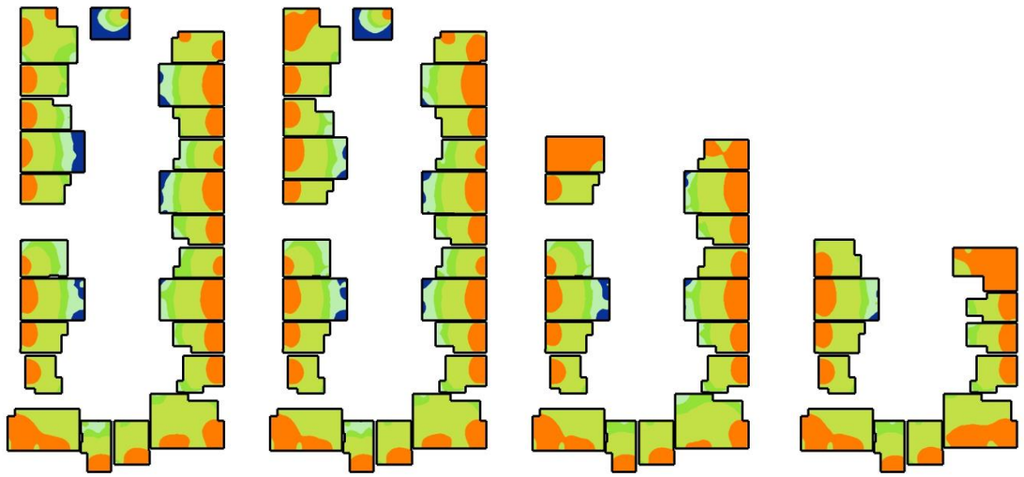
>50 % of the points on a reference plane to exceed

AB Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
A570C	Living/Kitchen	94	200	Pass
A571	Bedroom	100	100	Pass
A572	Bedroom	100	100	Pass
			Count	**283**
			Pass	**262**
			Pass rate	**93%**
			Marginal	17
			Pass Margina	99%

Block C – Radiance Plots 1st, 2nd & 3rd



Block C – Radiance Plots 4th, 5th, 6th & 7th



Block C – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

C Type

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
C101	Bedroom	96	100	Pass
C102C	Living/Kitchen	61	200	Pass
C103	Bedroom	100	100	Pass
C104	Bedroom	100	100	Pass
C105C	Living/Kitchen	61	200	Pass
C106	Bedroom	100	100	Pass
C107	Bedroom	22	100	Fail
C108C	Living/Kitchen	66	200	Pass
C109	Bedroom	99	100	Pass
C110	Bedroom	87	100	Pass
C111C	Living/Kitchen	44	200	Marginal
C112	Bedroom	100	100	Pass
C201C	Living/Kitchen	65	200	Pass
C202	Bedroom	96	100	Pass
C203	Bedroom	94	100	Pass
C204C	Living/Kitchen	61	200	Pass
C205	Bedroom	99	100	Pass
C206	Bedroom	98	100	Pass
C207C	Living/Kitchen	61	200	Pass
C208	Bedroom	99	100	Pass
C209	Bedroom	100	100	Pass
C210C	Living/Kitchen	66	200	Pass
C211	Bedroom	100	100	Pass
C212	Bedroom	33	100	Fail
C213C	Living/Kitchen	68	200	Pass
C214	Bedroom	100	100	Pass
C215	Bedroom	94	100	Pass
C216C	Living/Kitchen	47	200	Marginal
C217	Bedroom	100	100	Pass
C218	Bedroom	98	100	Pass
C219C	Living/Kitchen	57	200	Pass
C220	Bedroom	100	100	Pass
C221C	Living/Kitchen	35	200	Fail
C222	Bedroom	98	100	Pass
C223	Bedroom	99	100	Pass
C301C	Living/Kitchen	90	200	Pass
C302	Bedroom	100	100	Pass
C303	Bedroom	98	100	Pass
C304C	Living/Kitchen	62	200	Pass
C305	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

C Type

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
C306	Bedroom	98	100	Pass
C307C	Living/Kitchen	62	200	Pass
C308	Bedroom	99	100	Pass
C309	Bedroom	100	100	Pass
C310C	Living/Kitchen	64	200	Pass
C311	Bedroom	100	100	Pass
C312	Bedroom	38	100	Fail
C313C	Living/Kitchen	74	200	Pass
C314	Bedroom	100	100	Pass
C315	Bedroom	96	100	Pass
C316C	Living/Kitchen	49	200	Marginal
C317	Bedroom	100	100	Pass
C318	Bedroom	98	100	Pass
C319C	Living/Kitchen	59	200	Pass
C320	Bedroom	100	100	Pass
C321C	Living/Kitchen	92	200	Pass
C322	Bedroom	100	100	Pass
C323	Bedroom	100	100	Pass
C324	Bedroom	100	100	Pass
C401C	Living/Kitchen	94	200	Pass
C402	Bedroom	100	100	Pass
C403	Bedroom	100	100	Pass
C404C	Living/Kitchen	77	200	Pass
C405	Bedroom	100	100	Pass
C406	Bedroom	98	100	Pass
C407C	Living/Kitchen	67	200	Pass
C408	Bedroom	100	100	Pass
C409	Bedroom	100	100	Pass
C410C	Living/Kitchen	68	200	Pass
C411	Bedroom	100	100	Pass
C412	Bedroom	45	100	Marginal
C413C	Living/Kitchen	78	200	Pass
C414	Bedroom	100	100	Pass
C415	Bedroom	99	100	Pass
C416C	Living/Kitchen	51	200	Pass
C417	Bedroom	100	100	Pass
C418	Bedroom	98	100	Pass
C419C	Living/Kitchen	61	200	Pass
C420	Bedroom	100	100	Pass
C421	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

C Type

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
C422C	Living/Kitchen	99	200	Pass
C423	Bedroom	98	100	Pass
C424	Bedroom	100	100	Pass
C501C	Living/Kitchen	92	200	Pass
C502	Bedroom	100	100	Pass
C503	Bedroom	99	100	Pass
C504C	Living/Kitchen	69	200	Pass
C505	Bedroom	100	100	Pass
C506	Bedroom	100	100	Pass
C507C	Living/Kitchen	69	200	Pass
C508	Bedroom	100	100	Pass
C509	Bedroom	100	100	Pass
C510C	Living/Kitchen	74	200	Pass
C511	Bedroom	100	100	Pass
C512	Bedroom	56	100	Pass
C513C	Living/Kitchen	96	200	Pass
C514	Bedroom	100	100	Pass
C515	Bedroom	99	100	Pass
C516C	Living/Kitchen	68	200	Pass
C517	Bedroom	100	100	Pass
C518	Bedroom	99	100	Pass
C519C	Living/Kitchen	61	200	Pass
C520	Bedroom	100	100	Pass
C521	Bedroom	100	100	Pass
C522C	Living/Kitchen	99	200	Pass
C523	Bedroom	98	100	Pass
C524	Bedroom	100	100	Pass
C601C	Living/Kitchen	79	200	Pass
C602	Bedroom	100	100	Pass
C603	Bedroom	100	100	Pass
C604C	Living/Kitchen	76	200	Pass
C605	Bedroom	100	100	Pass
C606	Bedroom	100	100	Pass
C607C	Living/Kitchen	79	200	Pass
C608	Bedroom	100	100	Pass
C616C	Living/Kitchen	100	200	Pass
C617	Bedroom	100	100	Pass
C618	Bedroom	99	100	Pass
C619C	Living/Kitchen	59	200	Pass
C620	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

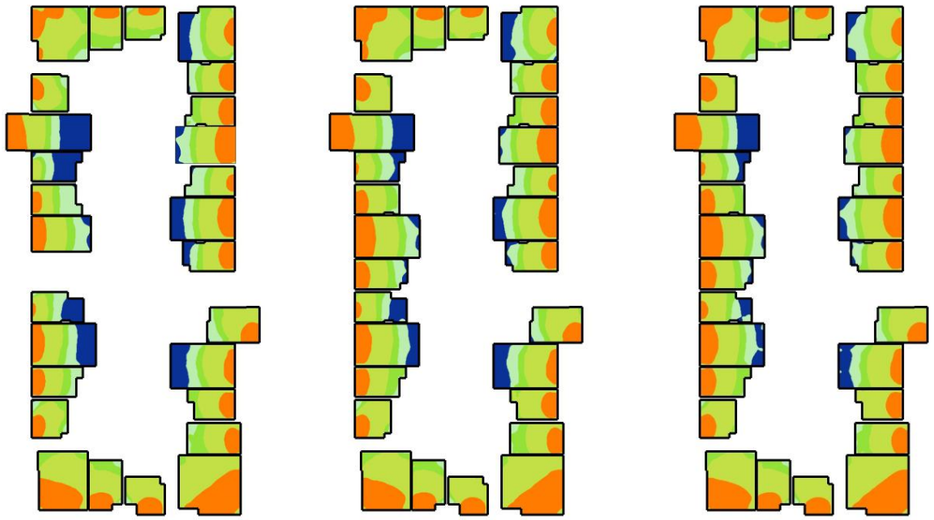
Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

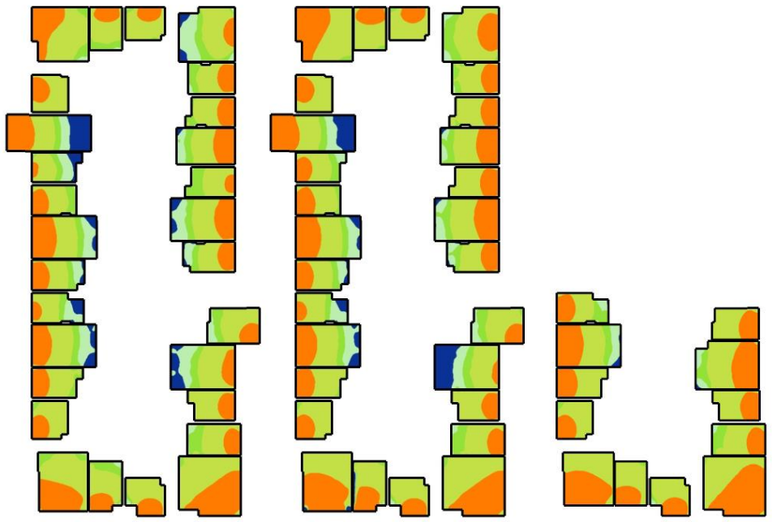
C Type

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
C621	Bedroom	100	100	Pass
C622C	Living/Kitchen	98	200	Pass
C623	Bedroom	100	100	Pass
C624	Bedroom	100	100	Pass
C701C	Living/Kitchen	98	200	Pass
C702	Bedroom	100	100	Pass
C703	Bedroom	100	100	Pass
C704	Bedroom	100	100	Pass
C705C	Living/Kitchen	100	200	Pass
C718	Bedroom	100	100	Pass
C719C	Living/Kitchen	70	200	Pass
C720	Bedroom	100	100	Pass
C721	Bedroom	100	100	Pass
C722C	Living/Kitchen	100	200	Pass
C723	Bedroom	100	100	Pass
C724	Bedroom	100	100	Pass
			Count	**136**
			Pass	**128**
			Pass rate	**94%**
			Marginal	4
			Pass Margina	97%

Block D – Radiance Plots 1st, 2nd & 3rd



Block D – Radiance Plots 4th, 5th & 6th



Block D – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

>50 % of the points on a reference plane to exceed

D Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
D101C	Living/Kitchen	98	200	Pass
D102	Bedroom	99	100	Pass
D103	Bedroom	100	100	Pass
D104C	Living/Kitchen	47	200	Marginal
D105	Bedroom	99	100	Pass
D106	Bedroom	85	100	Pass
D107C	Living/Kitchen	54	200	Pass
D108	Bedroom	98	100	Pass
D109C	Living/Kitchen	66	200	Pass
D110	Bedroom	100	100	Pass
D111	Bedroom	97	100	Pass
D112C	Living/Kitchen	44	200	Marginal
D113	Bedroom	99	100	Pass
D114	Bedroom	100	100	Pass
D115C	Living/Kitchen	78	200	Pass
D116	Bedroom	98	100	Pass
D117C	Living/Kitchen	47	200	Marginal
D118	Bedroom	42	100	Marginal
D119	Bedroom	98	100	Pass
D120C	Living/Kitchen	59	200	Pass
D122	Bedroom	67	100	Pass
D123C	Living/Kitchen	44	200	Marginal
D124	Bedroom	100	100	Pass
D125	Bedroom	99	100	Pass
D126C	Living/Kitchen	90	200	Pass
D127	Bedroom	100	100	Pass
D128	Bedroom	100	100	Pass
D201C	Living/Kitchen	98	200	Pass
D202	Bedroom	99	100	Pass
D203	Bedroom	100	100	Pass
D204C	Living/Kitchen	50	200	Pass
D205	Bedroom	97	100	Pass
D206	Bedroom	94	100	Pass
D207C	Living/Kitchen	60	200	Pass
D208	Bedroom	99	100	Pass
D209C	Living/Kitchen	68	200	Pass
D210	Bedroom	100	100	Pass
D211	Bedroom	98	100	Pass
D212C	Living/Kitchen	39	200	Fail
D213	Bedroom	100	100	Pass
D214	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

>50 % of the points on a reference plane to exceed

D Ref	Type Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
D215C	Living/Kitchen	85	200	Pass
D216	Bedroom	100	100	Pass
D217C	Living/Kitchen	53	200	Pass
D218	Bedroom	80	100	Pass
D219	Bedroom	100	100	Pass
D220C	Living/Kitchen	67	200	Pass
D221	Bedroom	94	100	Pass
D222	Bedroom	76	100	Pass
D223C	Living/Kitchen	59	200	Pass
D224	Bedroom	100	100	Pass
D225	Bedroom	100	100	Pass
D226C	Living/Kitchen	91	200	Pass
D227	Bedroom	100	100	Pass
D228	Bedroom	100	100	Pass
D301C	Living/Kitchen	99	200	Pass
D302	Bedroom	100	100	Pass
D303	Bedroom	100	100	Pass
D304C	Living/Kitchen	52	200	Pass
D305	Bedroom	100	100	Pass
D306	Bedroom	94	100	Pass
D307C	Living/Kitchen	63	200	Pass
D308	Bedroom	100	100	Pass
D309C	Living/Kitchen	72	200	Pass
D310	Bedroom	100	100	Pass
D311	Bedroom	100	100	Pass
D312C	Living/Kitchen	47	200	Marginal
D313	Bedroom	100	100	Pass
D314	Bedroom	100	100	Pass
D315C	Living/Kitchen	86	200	Pass
D316	Bedroom	100	100	Pass
D317C	Living/Kitchen	57	200	Pass
D318	Bedroom	80	100	Pass
D319	Bedroom	100	100	Pass
D320C	Living/Kitchen	69	200	Pass
D321	Bedroom	95	100	Pass
D322	Bedroom	86	100	Pass
D323C	Living/Kitchen	60	200	Pass
D324	Bedroom	100	100	Pass
D325	Bedroom	100	100	Pass
D326C	Living/Kitchen	91	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

D **Type**

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
D327	Bedroom	100	100	Pass
D328	Bedroom	100	100	Pass
D401C	Living/Kitchen	99	200	Pass
D402	Bedroom	100	100	Pass
D403	Bedroom	100	100	Pass
D404C	Living/Kitchen	54	200	Pass
D405	Bedroom	100	100	Pass
D406	Bedroom	95	100	Pass
D407C	Living/Kitchen	65	200	Pass
D408	Bedroom	100	100	Pass
D409C	Living/Kitchen	73	200	Pass
D410	Bedroom	100	100	Pass
D411	Bedroom	100	100	Pass
D412C	Living/Kitchen	49	200	Marginal
D413	Bedroom	100	100	Pass
D414	Bedroom	100	100	Pass
D415C	Living/Kitchen	90	200	Pass
D416	Bedroom	100	100	Pass
D417C	Living/Kitchen	57	200	Pass
D418	Bedroom	83	100	Pass
D419	Bedroom	100	100	Pass
D420C	Living/Kitchen	69	200	Pass
D421	Bedroom	95	100	Pass
D422	Bedroom	88	100	Pass
D423C	Living/Kitchen	61	200	Pass
D424	Bedroom	100	100	Pass
D425	Bedroom	100	100	Pass
D426C	Living/Kitchen	91	200	Pass
D427	Bedroom	100	100	Pass
D428	Bedroom	100	100	Pass
D501C	Living/Kitchen	99	200	Pass
D502	Bedroom	100	100	Pass
D503	Bedroom	100	100	Pass
D504C	Living/Kitchen	41	200	Marginal
D505	Bedroom	99	100	Pass
D506	Bedroom	97	100	Pass
D507C	Living/Kitchen	76	200	Pass
D508	Bedroom	100	100	Pass
D509C	Living/Kitchen	76	200	Pass
D510	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

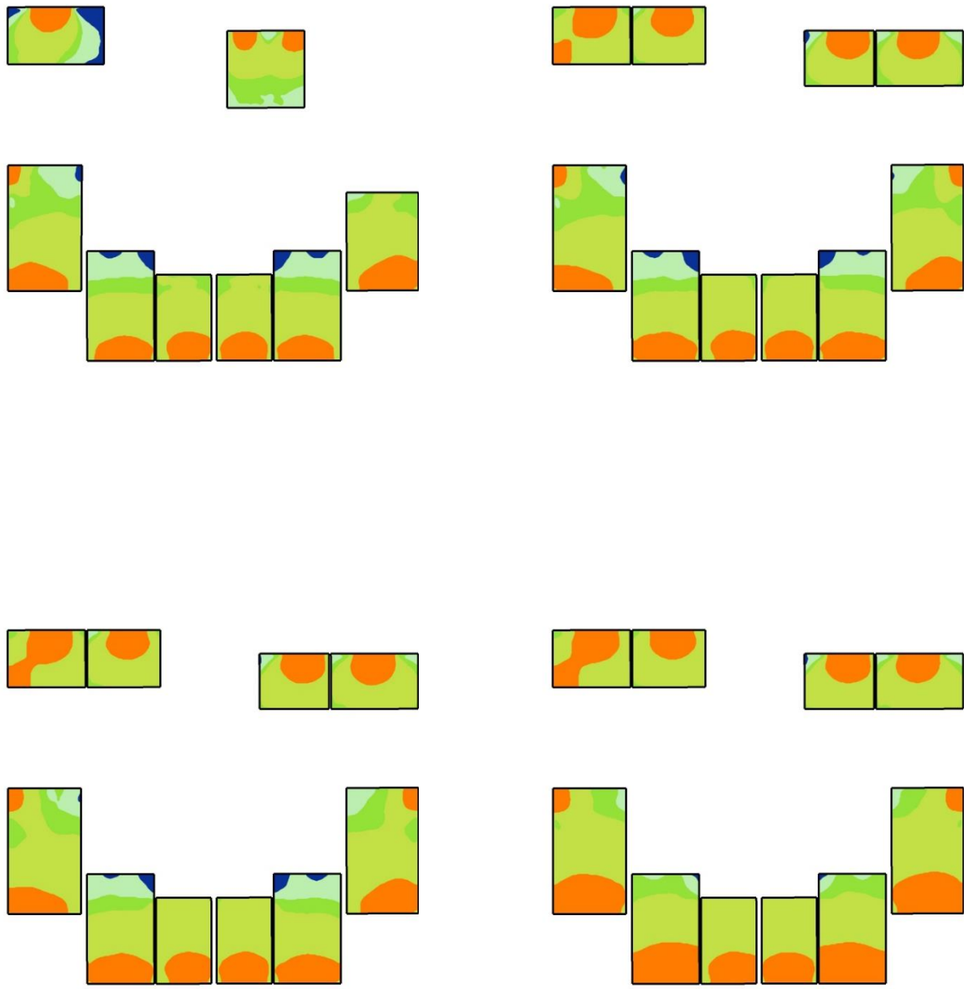
>50 % of the points on a reference plane to exceed

D **Type**

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
D511	Bedroom	100	100	Pass
D512C	Living/Kitchen	75	200	Pass
D513	Bedroom	100	100	Pass
D514	Bedroom	100	100	Pass
D515C	Living/Kitchen	98	200	Pass
D516	Bedroom	100	100	Pass
D517C	Living/Kitchen	58	200	Pass
D518	Bedroom	100	100	Pass
D519	Bedroom	100	100	Pass
D520C	Living/Kitchen	70	200	Pass
D521	Bedroom	95	100	Pass
D522	Bedroom	89	100	Pass
D523C	Living/Kitchen	64	200	Pass
D524	Bedroom	100	100	Pass
D525	Bedroom	100	100	Pass
D526C	Living/Kitchen	97	200	Pass
D527	Bedroom	90	100	Pass
D528	Bedroom	100	100	Pass
D601C	Living/Kitchen	99	200	Pass
D602	Bedroom	100	100	Pass
D603	Bedroom	100	100	Pass
D604C	Living/Kitchen	82	200	Pass
D605	Bedroom	100	100	Pass
D622	Bedroom	96	100	Pass
D623C	Living/Kitchen	74	200	Pass
D624	Bedroom	100	100	Pass
D625	Bedroom	100	100	Pass
D626C	Living/Kitchen	99	200	Pass
D627	Bedroom	100	100	Pass
D628	Bedroom	100	100	Pass

Count	**151**
Pass	**142**
Pass rate	**94%**
Marginal	8
Pass Margina	99%

Block E – Radiance Plots GFL, 1st, 2nd & 3rd



Block E – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location	Dublin	14,900	lx

>50 % of the points on a reference plane to exceed

E	Type			
Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
E001C	Living/Kitchen	87	200	Pass
E002X				
E003	Bedroom	100	100	Pass
E004	Bedroom	86	100	Pass
E006C	Living/Kitchen	67	200	Pass
E007C	Living/Kitchen	59	200	Pass
E008	Bedroom	100	100	Pass
E009	Bedroom	100	100	Pass
E010C	Living/Kitchen	60	200	Pass
E101C	Living/Kitchen	71	200	Pass
E102	Bedroom	100	100	Pass
E103	Bedroom	97	100	Pass
E104	Bedroom	100	100	Pass
E105	Bedroom	100	100	Pass
E106C	Living/Kitchen	65	200	Pass
E107C	Living/Kitchen	65	200	Pass
E108	Bedroom	100	100	Pass
E109	Bedroom	100	100	Pass
E110C	Living/Kitchen	65	200	Pass
E201C	Living/Kitchen	79	200	Pass
E202	Bedroom	100	100	Pass
E203	Bedroom	100	100	Pass
E204	Bedroom	100	100	Pass
E205	Bedroom	100	100	Pass
E206C	Living/Kitchen	76	200	Pass
E207C	Living/Kitchen	68	200	Pass
E208	Bedroom	100	100	Pass
E209	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

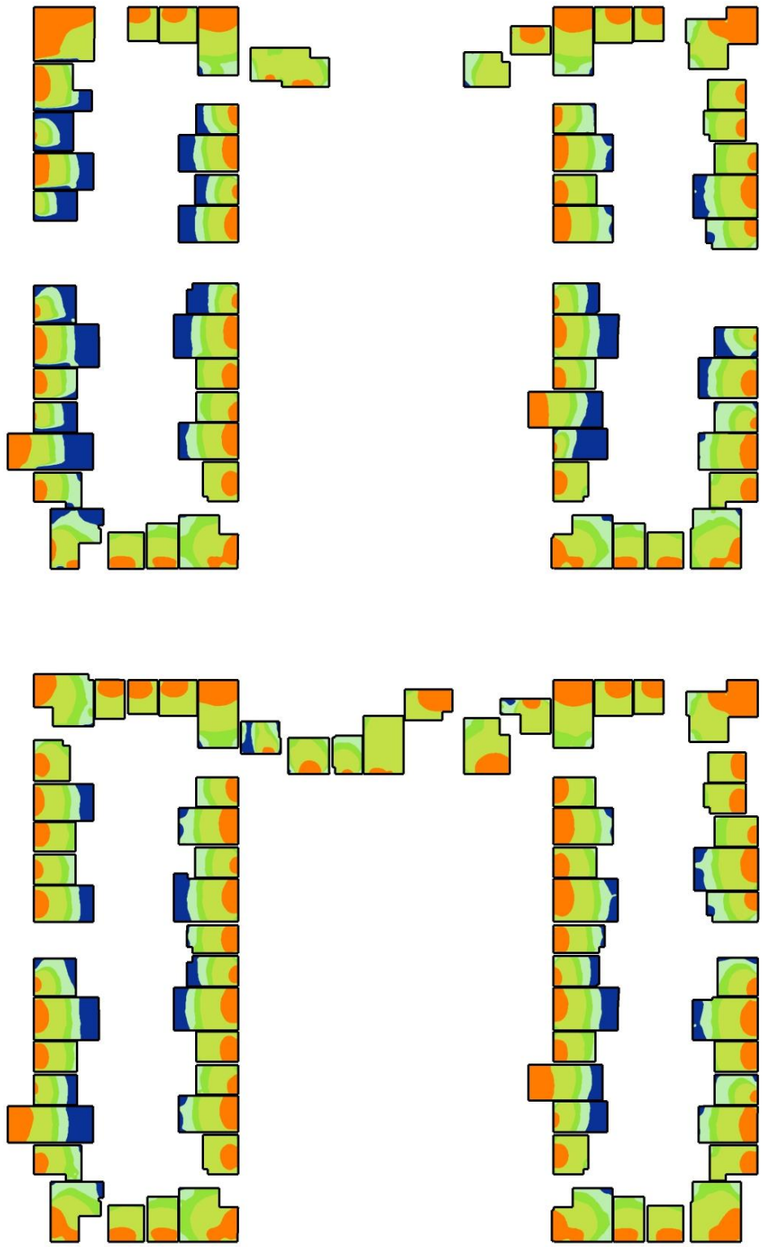
For all habitable room

Location	Dublin	14,900	lx

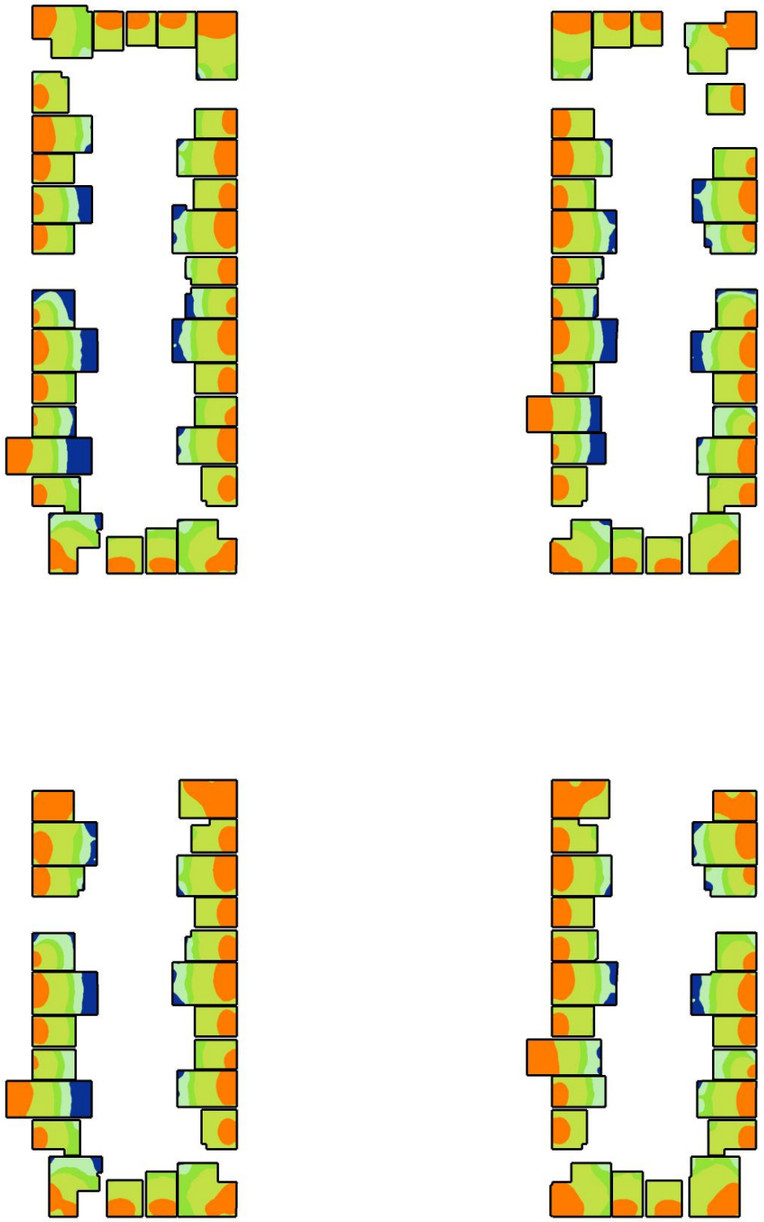
>50 % of the points on a reference plane to exceed

E	Type			
Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
E210C	Living/Kitchen	68	200	Pass
E301C	Living/Kitchen	92	200	Pass
E302	Bedroom	100	100	Pass
E303	Bedroom	99	100	Pass
E304	Bedroom	100	100	Pass
E305	Bedroom	100	100	Pass
E306C	Living/Kitchen	88	200	Pass
E307C	Living/Kitchen	80	200	Pass
E308	Bedroom	100	100	Pass
E309	Bedroom	100	100	Pass
E310C	Living/Kitchen	80	200	Pass
			Count	38
			Pass	38
			Pass rate	100%
			Marginal	0
			Pass Margina	100%

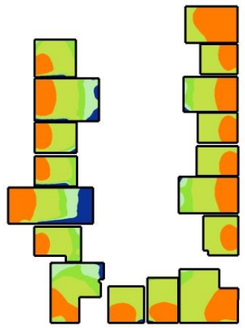
Block FG – Radiance Plots 1st & 2nd



Block FG – Radiance Plots 3rd & 4th



Block FG – Radiance Plots 5th



Block FG – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

FG Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
F101C	Living/Kitchen	58	200	Pass
F102	Bedroom	100	100	Pass
F103C	Living/Kitchen	67	200	Pass
F104	Bedroom	95	100	Pass
F105C	Living/Kitchen	54	200	Pass
F106	Bedroom	64	100	Pass
F108	Bedroom	94	100	Pass
F109C	Living/Kitchen	53	200	Pass
F110	Bedroom	100	100	Pass
F111	Bedroom	100	100	Pass
F112	Bedroom	100	100	Pass
F113C	Living/Kitchen	84	200	Pass
F114	Bedroom	100	100	Pass
F115	Bedroom	100	100	Pass
F116C	Living/Kitchen	71	200	Pass
F117	Bedroom	100	100	Pass
F154C	Living/Kitchen	63	200	Pass
F150C	Living/Kitchen	77	200	Pass
F119C	Living/Kitchen	72	200	Pass
F120	Bedroom	100	100	Pass
F121	Bedroom	100	100	Pass
F123C	Living/Kitchen	95	200	Pass
F124C	Living/Kitchen	58	200	Pass
F125	Bedroom	42	100	Marginal
F126C	Living/Kitchen	45	200	Marginal
F127	Bedroom	43	100	Marginal
F129	Bedroom	52	100	Pass
F130C	Living/Kitchen	37	200	Fail
F131	Bedroom	92	100	Pass
F132	Bedroom	59	100	Pass
F133C	Living/Kitchen	45	200	Marginal
F134	Bedroom	96	100	Pass
F135C	Living/Kitchen	39	200	Fail
F136	Bedroom	100	100	Pass
F137	Bedroom	100	100	Pass
F138C	Living/Kitchen	58	200	Pass
F139	Bedroom	100	100	Pass
F140C	Living/Kitchen	58	200	Pass
F141	Bedroom	100	100	Pass
F142	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

FG Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
F143C	Living/Kitchen	47	200	Marginal
F144	Bedroom	60	100	Pass
F146C	Living/Kitchen	48	200	Marginal
F147	Bedroom	72	100	Pass
F148C	Living/Kitchen	49	200	Marginal
F149	Bedroom	76	100	Pass
F155	Bedroom	91	100	Pass
F156C	Living/Kitchen	57	200	Pass
F157	Bedroom	100	100	Pass
F158C	Living/Kitchen	65	200	Pass
F160	Bedroom	74	100	Pass
F161C	Living/Kitchen	42	200	Marginal
F162	Bedroom	100	100	Pass
F163C	Living/Kitchen	53	200	Pass
F164	Bedroom	37	100	Fail
F165	Bedroom	100	100	Pass
F166C	Living/Kitchen	52	200	Pass
F167	Bedroom	100	100	Pass
F168	Bedroom	100	100	Pass
F201C	Living/Kitchen	77	200	Pass
F202	Bedroom	100	100	Pass
F203C	Living/Kitchen	67	200	Pass
F204	Bedroom	95	100	Pass
F205	Bedroom	100	100	Pass
F206C	Living/Kitchen	60	200	Pass
F207	Bedroom	93	100	Pass
F208	Bedroom	95	100	Pass
F209C	Living/Kitchen	59	200	Pass
F210	Bedroom	100	100	Pass
F211	Bedroom	100	100	Pass
F212	Bedroom	100	100	Pass
F213C	Living/Kitchen	86	200	Pass
F214	Bedroom	100	100	Pass
F215	Bedroom	100	100	Pass
F216C	Living/Kitchen	78	200	Pass
F217	Bedroom	93	100	Pass
F218	Bedroom	100	100	Pass
F219C	Living/Kitchen	72	200	Pass
F220	Bedroom	100	100	Pass
F221	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

FG Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
F222	Bedroom	100	100	Pass
F223C	Living/Kitchen	59	200	Pass
F224	Bedroom	100	100	Pass
F225C	Living/Kitchen	49	200	Marginal
F226	Bedroom	100	100	Pass
F227	Bedroom	100	100	Pass
F228C	Living/Kitchen	51	200	Pass
F229	Bedroom	81	100	Pass
F230C	Living/Kitchen	46	200	Marginal
F231	Bedroom	100	100	Pass
F232	Bedroom	77	100	Pass
F233C	Living/Kitchen	53	200	Pass
F234	Bedroom	98	100	Pass
F235C	Living/Kitchen	56	200	Pass
F236	Bedroom	100	100	Pass
F237	Bedroom	100	100	Pass
F238C	Living/Kitchen	64	200	Pass
F239	Bedroom	100	100	Pass
F240C	Living/Kitchen	64	200	Pass
F241	Bedroom	100	100	Pass
F242	Bedroom	100	100	Pass
F243C	Living/Kitchen	56	200	Pass
F244	Bedroom	81	100	Pass
F245	Bedroom	96	100	Pass
F246C	Living/Kitchen	53	200	Pass
F247	Bedroom	100	100	Pass
F248C	Living/Kitchen	63	200	Pass
F249	Bedroom	100	100	Pass
F250	Bedroom	75	100	Pass
F251	Bedroom	99	100	Pass
F252	Bedroom	100	100	Pass
F253C	Living/Kitchen	95	200	Pass
F254C	Living/Kitchen	84	200	Pass
F255	Bedroom	100	100	Pass
F256C	Living/Kitchen	66	200	Pass
F257	Bedroom	100	100	Pass
F258C	Living/Kitchen	61	200	Pass
F259	Bedroom	94	100	Pass
F260	Bedroom	81	100	Pass
F261C	Living/Kitchen	47	200	Marginal

NA.2 Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

>50 % of the points on a reference plane to exceed

FG Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
F262	Bedroom	100	100	Pass
F263C	Living/Kitchen	61	200	Pass
F264	Bedroom	63	100	Pass
F265	Bedroom	100	100	Pass
F266C	Living/Kitchen	57	200	Pass
F267	Bedroom	100	100	Pass
F268	Bedroom	100	100	Pass
F301C	Living/Kitchen	76	200	Pass
F302	Bedroom	100	100	Pass
F303C	Living/Kitchen	67	200	Pass
F304	Bedroom	98	100	Pass
F305	Bedroom	100	100	Pass
F306C	Living/Kitchen	58	200	Pass
F307	Bedroom	94	100	Pass
F308	Bedroom	95	100	Pass
F309C	Living/Kitchen	59	200	Pass
F310	Bedroom	100	100	Pass
F312	Bedroom	100	100	Pass
F313C	Living/Kitchen	84	200	Pass
F314	Bedroom	100	100	Pass
F315	Bedroom	100	100	Pass
F316C	Living/Kitchen	72	200	Pass
F319C	Living/Kitchen	85	200	Pass
F320	Bedroom	100	100	Pass
F321	Bedroom	100	100	Pass
F322	Bedroom	100	100	Pass
F323C	Living/Kitchen	69	200	Pass
F324	Bedroom	100	100	Pass
F325C	Living/Kitchen	71	200	Pass
F326	Bedroom	100	100	Pass
F327C	Living/Kitchen	47	200	Marginal
F328	Bedroom	100	100	Pass
F329	Bedroom	72	100	Pass
F330C	Living/Kitchen	52	200	Pass
F331	Bedroom	100	100	Pass
F332	Bedroom	89	100	Pass
F333C	Living/Kitchen	53	200	Pass
F334	Bedroom	98	100	Pass
F335C	Living/Kitchen	56	200	Pass
F336	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

FG	Type			
Ref	**Type**	**Percentage within Target Lux**	**BS/EN17037 Annex AN Target Lux**	**Check**
F337	Bedroom	100	100	Pass
F338C	Living/Kitchen	67	200	Pass
F339	Bedroom	100	100	Pass
F340C	Living/Kitchen	67	200	Pass
F341	Bedroom	100	100	Pass
F342	Bedroom	100	100	Pass
F343C	Living/Kitchen	62	200	Pass
F344	Bedroom	86	100	Pass
F345	Bedroom	99	100	Pass
F346C	Living/Kitchen	66	200	Pass
F347	Bedroom	100	100	Pass
F348C	Living/Kitchen	76	200	Pass
F349	Bedroom	100	100	Pass
F355	Bedroom	100	100	Pass
F356C	Living/Kitchen	75	200	Pass
F357	Bedroom	100	100	Pass
F358C	Living/Kitchen	63	200	Pass
F359	Bedroom	95	100	Pass
F360	Bedroom	92	100	Pass
F361C	Living/Kitchen	54	200	Pass
F362	Bedroom	100	100	Pass
F363C	Living/Kitchen	64	200	Pass
F364	Bedroom	71	100	Pass
F365	Bedroom	100	100	Pass
F366C	Living/Kitchen	59	200	Pass
F367	Bedroom	100	100	Pass
F368	Bedroom	100	100	Pass
F401C	Living/Kitchen	80	200	Pass
F402	Bedroom	100	100	Pass
F403C	Living/Kitchen	73	200	Pass
F404	Bedroom	99	100	Pass
F405	Bedroom	100	100	Pass
F406C	Living/Kitchen	61	200	Pass
F407	Bedroom	100	100	Pass
F408	Bedroom	95	100	Pass
F409C	Living/Kitchen	71	200	Pass
F410	Bedroom	100	100	Pass
F426	Bedroom	100	100	Pass
F427C	Living/Kitchen	63	200	Pass
F428	Bedroom	97	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

FG	Type			
Ref	**Type**	**Percentage within Target Lux**	**BS/EN17037 Annex AN Target Lux**	**Check**
F429	Bedroom	91	100	Pass
F430C	Living/Kitchen	53	200	Pass
F431	Bedroom	100	100	Pass
F432	Bedroom	99	100	Pass
F433C	Living/Kitchen	56	200	Pass
F434	Bedroom	99	100	Pass
F435C	Living/Kitchen	53	200	Pass
F436	Bedroom	100	100	Pass
F437	Bedroom	100	100	Pass
F438C	Living/Kitchen	67	200	Pass
F439	Bedroom	100	100	Pass
F440C	Living/Kitchen	69	200	Pass
F441	Bedroom	100	100	Pass
F442	Bedroom	100	100	Pass
F443C	Living/Kitchen	69	200	Pass
F444	Bedroom	98	100	Pass
F445	Bedroom	100	100	Pass
F446C	Living/Kitchen	76	200	Pass
F447	Bedroom	100	100	Pass
F448C	Living/Kitchen	100	200	Pass
F456C	Living/Kitchen	100	200	Pass
F457	Bedroom	100	100	Pass
F458C	Living/Kitchen	73	200	Pass
F459	Bedroom	100	100	Pass
F460	Bedroom	100	100	Pass
F461C	Living/Kitchen	65	200	Pass
F462	Bedroom	100	100	Pass
F463C	Living/Kitchen	71	200	Pass
F464	Bedroom	99	100	Pass
F465	Bedroom	100	100	Pass
F466C	Living/Kitchen	83	200	Pass
F467	Bedroom	100	100	Pass
F468	Bedroom	100	100	Pass
F529	Bedroom	93	100	Pass
F530C	Living/Kitchen	65	200	Pass
F531	Bedroom	97	100	Pass
F532	Bedroom	90	100	Pass
F533C	Living/Kitchen	56	200	Pass
F534	Bedroom	99	100	Pass

NA.2 Minimum daylight provision

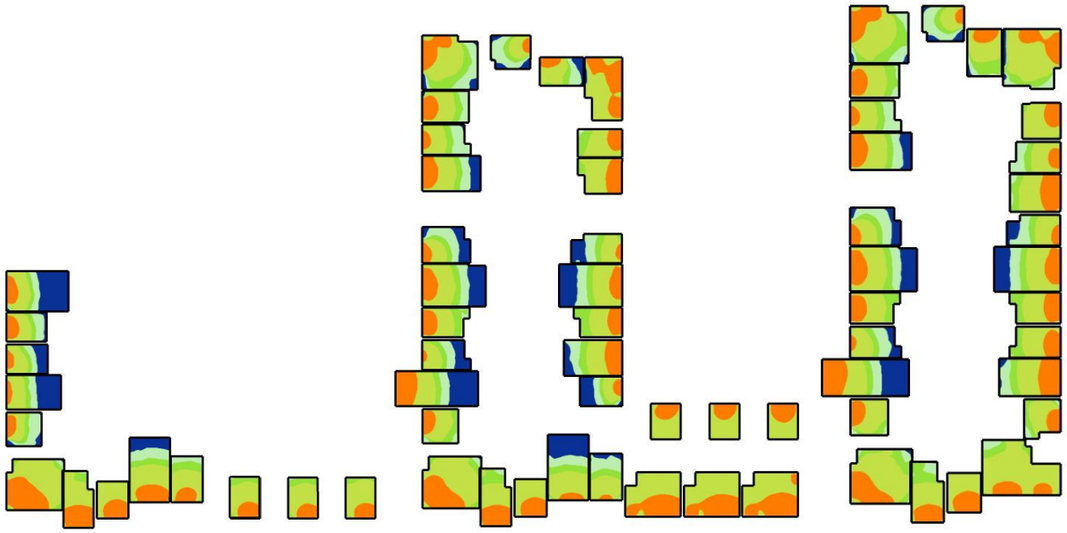
For all habitable rooms

Location ***Dublin*** ***14,900*** ***lx***

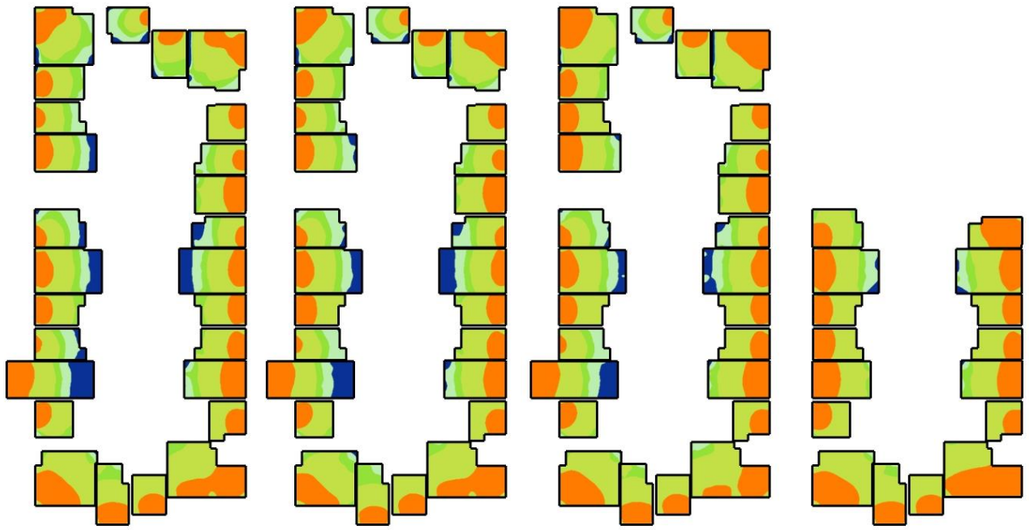
>50 % of the points on a reference plane to exceed

FG	Type			
Ref	**Type**	**Percentage within Target Lux**	**BS/EN17037 Annex AN Target Lux**	**Check**
F535C	Living/Kitchen	55	200	Pass
F536	Bedroom	97	100	Pass
F537	Bedroom	97	100	Pass
F538C	Living/Kitchen	92	200	Pass
F539	Bedroom	100	100	Pass
F540C	Living/Kitchen	76	200	Pass
F541	Bedroom	100	100	Pass
F542	Bedroom	100	100	Pass
F543C	Living/Kitchen	83	200	Pass
F544	Bedroom	100	100	Pass
F545C	Living/Kitchen	99	200	Pass
			Count	**250**
			Pass	**235**
			Pass rate	**94%**
			Marginal	12
			Pass Margina	99%

Block H – Radiance Plots GFL, 1st & 2nd



Block H – Radiance Plots 3rd, 4th, 5th & 6th



Block H – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

H Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
H001C	Living/Kitchen	33	200	Fail
H002	Bedroom	89	100	Pass
H003	Bedroom	68	100	Pass
H004C	Living/Kitchen	33	200	Fail
H005	Bedroom	84	100	Pass
H006C	Living/Kitchen	94	200	Pass
H007	Bedroom	100	100	Pass
H008	Bedroom	100	100	Pass
H009C	Living/Kitchen	56	200	Pass
H010	Bedroom	100	100	Pass
H011	Bedroom	100	100	Pass
H012	Bedroom	100	100	Pass
H013	Bedroom	100	100	Pass
H101	Bedroom	90	100	Pass
H103	Bedroom	64	100	Pass
H104C	Living/Kitchen	58	200	Pass
H105	Bedroom	100	100	Pass
H106C	Living/Kitchen	45	200	Marginal
H107	Bedroom	77	100	Pass
H109C	Living/Kitchen	90	200	Pass
H110	Bedroom	100	100	Pass
H111C	Living/Kitchen	96	200	Pass
H112	Bedroom	84	100	Pass
H113	Bedroom	80	100	Pass
H114C	Living/Kitchen	56	200	Pass
H115	Bedroom	98	100	Pass
H116	Bedroom	98	100	Pass
H117C	Living/Kitchen	57	200	Pass
H118	Bedroom	73	100	Pass
H119C	Living/Kitchen	48	200	Marginal
H120	Bedroom	100	100	Pass
H121	Bedroom	71	100	Pass
H122C	Living/Kitchen	46	200	Marginal
H123	Bedroom	100	100	Pass
H124C	Living/Kitchen	90	200	Pass
H125	Bedroom	100	100	Pass
H126	Bedroom	100	100	Pass
H127C	Living/Kitchen	40	200	Marginal
H128C	Living/Kitchen	99	200	Pass
H129C	Living/Kitchen	99	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

H Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
H130C	Living/Kitchen	100	200	Pass
H131	Bedroom	100	100	Pass
H132	Bedroom	100	100	Pass
H133	Bedroom	100	100	Pass
H201C	Living/Kitchen	87	200	Pass
H202	Bedroom	98	100	Pass
H203C	Living/Kitchen	67	200	Pass
H204	Bedroom	100	100	Pass
H205	Bedroom	100	100	Pass
H206C	Living/Kitchen	51	200	Pass
H207	Bedroom	84	100	Pass
H208C	Living/Kitchen	81	200	Pass
H209	Bedroom	100	100	Pass
H210	Bedroom	100	100	Pass
H211C	Living/Kitchen	79	200	Pass
H212	Bedroom	96	100	Pass
H213	Bedroom	84	100	Pass
H214C	Living/Kitchen	64	200	Pass
H215	Bedroom	98	100	Pass
H216	Bedroom	100	100	Pass
H217C	Living/Kitchen	58	200	Pass
H218	Bedroom	80	100	Pass
H219C	Living/Kitchen	52	200	Pass
H220	Bedroom	100	100	Pass
H221	Bedroom	82	100	Pass
H222C	Living/Kitchen	51	200	Pass
H223	Bedroom	100	100	Pass
H224C	Living/Kitchen	79	200	Pass
H225	Bedroom	100	100	Pass
H226	Bedroom	100	100	Pass
H301C	Living/Kitchen	94	200	Pass
H302	Bedroom	100	100	Pass
H303C	Living/Kitchen	77	200	Pass
H304	Bedroom	100	100	Pass
H305	Bedroom	100	100	Pass
H306C	Living/Kitchen	56	200	Pass
H307	Bedroom	86	100	Pass
H308C	Living/Kitchen	90	200	Pass
H309	Bedroom	100	100	Pass
H310	Bedroom	100	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

H **Type**

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
H311C	Living/Kitchen	74	200	Pass
H312	Bedroom	94	100	Pass
H313	Bedroom	92	100	Pass
H314C	Living/Kitchen	64	200	Pass
H315	Bedroom	98	100	Pass
H316	Bedroom	100	100	Pass
H317C	Living/Kitchen	61	200	Pass
H318	Bedroom	85	100	Pass
H319C	Living/Kitchen	57	200	Pass
H320	Bedroom	100	100	Pass
H321	Bedroom	89	100	Pass
H322C	Living/Kitchen	55	200	Pass
H323	Bedroom	100	100	Pass
H324C	Living/Kitchen	94	200	Pass
H325	Bedroom	100	100	Pass
H326	Bedroom	100	100	Pass
H401C	Living/Kitchen	94	200	Pass
H402	Bedroom	100	100	Pass
H403C	Living/Kitchen	71	200	Pass
H404	Bedroom	100	100	Pass
H405	Bedroom	100	100	Pass
H406C	Living/Kitchen	51	200	Pass
H407	Bedroom	92	100	Pass
H408C	Living/Kitchen	91	200	Pass
H409	Bedroom	100	100	Pass
H410	Bedroom	100	100	Pass
H411C	Living/Kitchen	77	200	Pass
H412	Bedroom	96	100	Pass
H413	Bedroom	92	100	Pass
H414C	Living/Kitchen	70	200	Pass
H415	Bedroom	98	100	Pass
H416	Bedroom	100	100	Pass
H417C	Living/Kitchen	66	200	Pass
H418	Bedroom	96	100	Pass
H419C	Living/Kitchen	61	200	Pass
H420	Bedroom	100	100	Pass
H421	Bedroom	98	100	Pass
H422C	Living/Kitchen	57	200	Pass
H423	Bedroom	100	100	Pass
H424C	Living/Kitchen	87	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

H **Type**

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
H425	Bedroom	100	100	Pass
H426	Bedroom	100	100	Pass
H501C	Living/Kitchen	91	200	Pass
H502	Bedroom	100	100	Pass
H503C	Living/Kitchen	85	200	Pass
H504	Bedroom	100	100	Pass
H505	Bedroom	100	100	Pass
H506C	Living/Kitchen	60	200	Pass
H507	Bedroom	94	100	Pass
H508C	Living/Kitchen	96	200	Pass
H509	Bedroom	100	100	Pass
H510	Bedroom	100	100	Pass
H511C	Living/Kitchen	86	200	Pass
H512	Bedroom	99	100	Pass
H513	Bedroom	95	100	Pass
H514C	Living/Kitchen	87	200	Pass
H515	Bedroom	98	100	Pass
H516	Bedroom	100	100	Pass
H517C	Living/Kitchen	77	200	Pass
H518	Bedroom	96	100	Pass
H519C	Living/Kitchen	62	200	Pass
H520	Bedroom	100	100	Pass
H521	Bedroom	100	100	Pass
H522C	Living/Kitchen	59	200	Pass
H523	Bedroom	100	100	Pass
H524C	Living/Kitchen	95	200	Pass
H525	Bedroom	100	100	Pass
H526	Bedroom	100	100	Pass
H601C	Living/Kitchen	98	200	Pass
H602	Bedroom	100	100	Pass
H603C	Living/Kitchen	83	200	Pass
H604	Bedroom	100	100	Pass
H605	Bedroom	100	100	Pass
H606C	Living/Kitchen	73	200	Pass
H607	Bedroom	100	100	Pass
H618	Bedroom	100	100	Pass
H619C	Living/Kitchen	71	200	Pass
H620	Bedroom	100	100	Pass
H621	Bedroom	100	100	Pass
H622C	Living/Kitchen	91	200	Pass

NA.2 Minimum daylight provision

For all habitable rooms

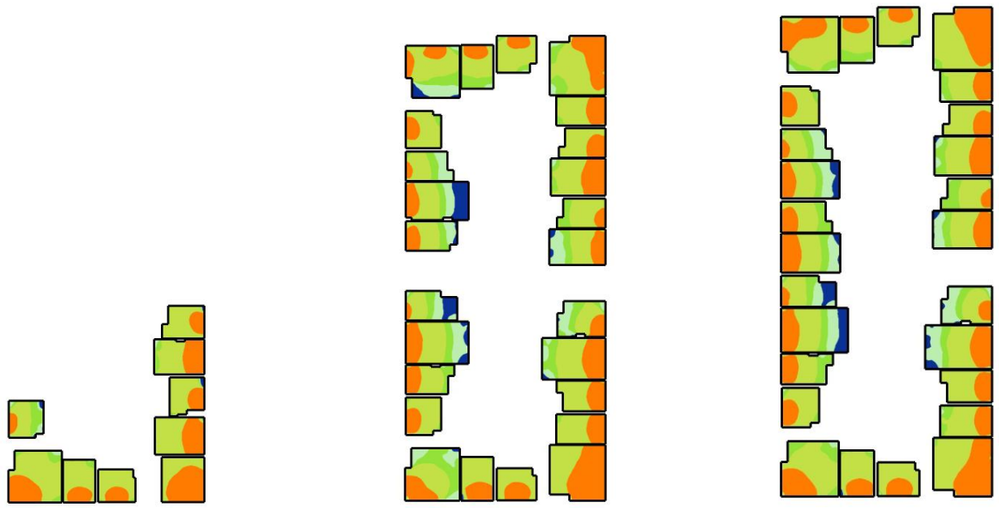
Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

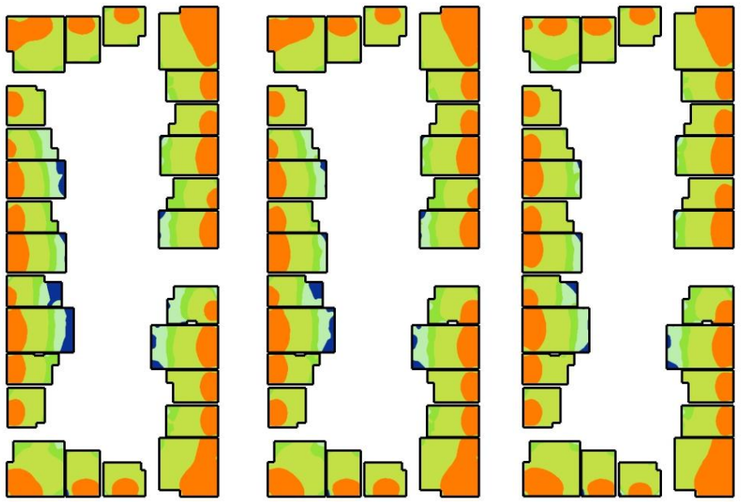
H **Type**

Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
H623	Bedroom	100	100	Pass
H624C	Living/Kitchen	96	200	Pass
H625	Bedroom	100	100	Pass
H626	Bedroom	100	100	Pass
			Count	**164**
			Pass	**158**
			Pass rate	**96%**
			Marginal	4
			Pass Margina	99%

Block J – Radiance Plots GFL, 1st & 2nd



Block J – Radiance Plots 3rd, 4th& 5th



Block J – E_T results - Tabulated

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

J Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
J001	Bedroom	95	100	Pass
J002C	Living/Kitchen	90	200	Pass
J003	Bedroom	100	100	Pass
J004	Bedroom	100	100	Pass
J005C	Living/Kitchen	100	200	Pass
J006C	Living/Kitchen	98	200	Pass
J007	Bedroom	95	100	Pass
J008C	Living/Kitchen	87	200	Pass
J009	Bedroom	97	100	Pass
J101C	Living/Kitchen	99	200	Pass
J102	Bedroom	100	100	Pass
J103	Bedroom	100	100	Pass
J104C	Living/Kitchen	78	200	Pass
J105	Bedroom	98	100	Pass
J106C	Living/Kitchen	60	200	Pass
J107	Bedroom	100	100	Pass
J108C	Living/Kitchen	91	200	Pass
J109	Bedroom	100	100	Pass
J110	Bedroom	100	100	Pass
J111C	Living/Kitchen	83	200	Pass
J112	Bedroom	100	100	Pass
J113	Bedroom	100	100	Pass
J114C	Living/Kitchen	61	200	Pass
J115	Bedroom	100	100	Pass
J116	Bedroom	100	100	Pass
J117C	Living/Kitchen	53	200	Pass
J118	Bedroom	95	100	Pass
J120	Bedroom	80	100	Pass
J121C	Living/Kitchen	61	200	Pass
J122	Bedroom	100	100	Pass
J123	Bedroom	100	100	Pass
J124C	Living/Kitchen	54	200	Pass
J125	Bedroom	98	100	Pass
J126	Bedroom	100	100	Pass
J201C	Living/Kitchen	98	200	Pass
J202	Bedroom	100	100	Pass
J203	Bedroom	100	100	Pass
J204C	Living/Kitchen	64	200	Pass
J205	Bedroom	96	100	Pass
J206C	Living/Kitchen	67	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

>50 % of the points on a reference plane to exceed

J Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
J207	Bedroom	100	100	Pass
J208C	Living/Kitchen	81	200	Pass
J209	Bedroom	100	100	Pass
J210	Bedroom	100	100	Pass
J211C	Living/Kitchen	97	200	Pass
J212	Bedroom	100	100	Pass
J213	Bedroom	100	100	Pass
J214C	Living/Kitchen	87	200	Pass
J215	Bedroom	100	100	Pass
J216	Bedroom	98	100	Pass
J217C	Living/Kitchen	58	200	Pass
J218	Bedroom	100	100	Pass
J219C	Living/Kitchen	64	200	Pass
J220	Bedroom	80	100	Pass
J221C	Living/Kitchen	60	200	Pass
J222	Bedroom	99	100	Pass
J223	Bedroom	100	100	Pass
J224C	Living/Kitchen	81	200	Pass
J225	Bedroom	98	100	Pass
J226	Bedroom	99	100	Pass
J301C	Living/Kitchen	97	200	Pass
J302	Bedroom	100	100	Pass
J303	Bedroom	100	100	Pass
J304C	Living/Kitchen	65	200	Pass
J305	Bedroom	97	100	Pass
J306C	Living/Kitchen	68	200	Pass
J307	Bedroom	100	100	Pass
J308C	Living/Kitchen	83	200	Pass
J309	Bedroom	100	100	Pass
J310	Bedroom	100	100	Pass
J311C	Living/Kitchen	99	200	Pass
J312	Bedroom	100	100	Pass
J313	Bedroom	100	100	Pass
J314C	Living/Kitchen	93	200	Pass
J315	Bedroom	100	100	Pass
J316	Bedroom	100	100	Pass
J317C	Living/Kitchen	62	200	Pass
J318	Bedroom	100	100	Pass
J319C	Living/Kitchen	71	200	Pass
J320	Bedroom	80	100	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

>50 % of the points on a reference plane to exceed

J	Type			
Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
J321C	Living/Kitchen	61	200	Pass
J322	Bedroom	99	100	Pass
J323	Bedroom	100	100	Pass
J324C	Living/Kitchen	83	200	Pass
J325	Bedroom	98	100	Pass
J326	Bedroom	99	100	Pass
J401C	Living/Kitchen	98	200	Pass
J402	Bedroom	100	100	Pass
J403	Bedroom	100	100	Pass
J404C	Living/Kitchen	66	200	Pass
J405	Bedroom	99	100	Pass
J406C	Living/Kitchen	72	200	Pass
J407	Bedroom	100	100	Pass
J408C	Living/Kitchen	84	200	Pass
J409	Bedroom	100	100	Pass
J410	Bedroom	100	100	Pass
J411C	Living/Kitchen	99	200	Pass
J412	Bedroom	100	100	Pass
J413	Bedroom	100	100	Pass
J414C	Living/Kitchen	95	200	Pass
J415	Bedroom	100	100	Pass
J416	Bedroom	100	100	Pass
J417C	Living/Kitchen	69	200	Pass
J418	Bedroom	100	100	Pass
J419C	Living/Kitchen	74	200	Pass
J420	Bedroom	85	100	Pass
J421C	Living/Kitchen	65	200	Pass
J422	Bedroom	100	100	Pass
J423	Bedroom	100	100	Pass
J424C	Living/Kitchen	85	200	Pass
J425	Bedroom	98	100	Pass
J426	Bedroom	99	100	Pass
J501C	Living/Kitchen	98	200	Pass
J502	Bedroom	100	100	Pass
J503	Bedroom	100	100	Pass
J504C	Living/Kitchen	68	200	Pass
J505	Bedroom	99	100	Pass
J506C	Living/Kitchen	83	200	Pass
J507	Bedroom	100	100	Pass
J508C	Living/Kitchen	84	200	Pass

NA.2 Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

>50 % of the points on a reference plane to exceed

J	Type			
Ref	Type	Percentage within Target Lux	BS/EN17037 Annex AN Target Lux	Check
J509	Bedroom	100	100	Pass
J510	Bedroom	100	100	Pass
J511C	Living/Kitchen	99	200	Pass
J512	Bedroom	100	100	Pass
J513	Bedroom	100	100	Pass
J514C	Living/Kitchen	72	200	Pass
J515	Bedroom	100	100	Pass
J516	Bedroom	100	100	Pass
J517C	Living/Kitchen	74	200	Pass
J518	Bedroom	100	100	Pass
J519C	Living/Kitchen	73	200	Pass
J520	Bedroom	95	100	Pass
J521C	Living/Kitchen	70	200	Pass
J522	Bedroom	100	100	Pass
J523	Bedroom	100	100	Pass
J524C	Living/Kitchen	92	200	Pass
J525	Bedroom	98	100	Pass
J526	Bedroom	99	100	Pass
			Count	**138**
			Pass	**138**
			Pass rate	**100%**
			Marginal	**0**
			Pass Margina	**100%**

Summary – Light Distribution all habitable rooms for all blocks.

A summary for pass results for all blocks is detailed below.
Full details may be found in: Appendix 2 – Light Distribution – Target Illuminance

	E_T % Pass			Area Compliant	
	BRE v3	Incl Marginal		Avg. Bed	Avg. Liv
	Pass %	Pass %			
AB	93%	99%		91	64
C	94%	97%		96	72
D	94%	99%		97	70
E	100%	100%		99	73
FG	94%	99%		95	65
H	96%	99%		96	72
J	100%	100%		99	79
Total	**95%**	**99%**		**95%**	**69%**

95% of all habitable rooms are complaint.

This pass rate increases to **99%** if we include those results which are just marginal.

The average complaint areas achieving the relevant target Lx for all bedrooms is ***95%*** and all Living/Kitchen spaces ***69%*** both are well in excess of the required 50%

THIS SUMMARY OF RESULTS IS TRANSFERRED TO MAIN BODY OF THE REPORT.

Appendix 3
Sunlight Living rooms

Sunlight is tested for all living rooms.

Where multiple windows light a room the one which receives the most sunlight is presented.

Only floors with residential units are presented.

For analysis based on Sunlight the BRE guideline 80% compliance is consistent with "Careful Design"

THE SUMMARY OF RESULTS FOR THIS APPENDIX IS TRANSFERRED TO MAIN BODY OF THE REPORT.

Block AB - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

AB

Ref	Hrs of Sun	Pass	Quality		
A101C	1.5	Pass	Min		
A104C	3.8	Pass		Medium	
A106C	4.3	Pass			High
A109C	1.5	Pass	Min		
A110C	2.5	Pass	Min		
A111C	2.5	Pass	Min		
A114C	2.3	Pass	Min		
A117C	1.2	Marginal			
A121C	0.0	Fail			
A124c	3.7	Pass		Medium	
A127c	5.3	Pass			High
A130C	5.0	Pass			High
A133C	5.5	Pass			High
A135C	3.3	Pass		Medium	
A138C	2.5	Pass	Min		
A141C	3.5	Pass		Medium	
A143C	1.7	Pass	Min		
A146C	2.2	Pass	Min		
A148C	2.2	Pass	Min		
A151C	3.3	Pass		Medium	
A153C	4.0	Pass			High
A155C	4.3	Pass			High
A158C	3.3	Pass		Medium	
A163C	2.2	Pass	Min		
A165C	1.7	Pass	Min		
A167C	3.0	Pass		Medium	
A170C	1.8	Pass	Min		
A201C	1.8	Pass	Min		
A204C	4.2	Pass			High
A206C	4.5	Pass			High
A209C	1.8	Pass	Min		
A210C	2.7	Pass	Min		
A211C	2.8	Pass	Min		
A214C	3.0	Pass		Medium	
A217C	1.8	Pass	Min		
A221C	0.0	Fail			
A224C	3.7	Pass		Medium	
A227C	5.3	Pass			High
A230C	5.0	Pass			High

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

AB

Ref	Hrs of Sun	Pass	Quality		
A233C	5.5	Pass			High
A235C	3.2	Pass		Medium	
A238C	3.3	Pass		Medium	
A241C	3.5	Pass		Medium	
A243C	2.2	Pass	Min		
A246C	2.7	Pass	Min		
A248C	2.7	Pass	Min		
A255C	6.2	Pass			High
A257C	3.8	Pass		Medium	
A259C	3.8	Pass		Medium	
A263C	2.5	Pass	Min		
A265C	2.0	Pass	Min		
A267C	3.2	Pass		Medium	
A270C	2.8	Pass	Min		
A301C	2.0	Pass	Min		
A304C	4.5	Pass			High
A306C	4.5	Pass			High
A309C	2.2	Pass	Min		
A310C	3.0	Pass		Medium	
A311C	3.3	Pass		Medium	
A314C	3.3	Pass		Medium	
A317C	2.3	Pass	Min		
A321C	0.0	Fail			
A324C	3.7	Pass		Medium	
A327C	5.5	Pass			High
A330C	5.0	Pass			High
A333C	0.0	Fail			
A335C	3.3	Pass		Medium	
A338C	4.3	Pass			High
A341C	3.7	Pass		Medium	
A343C	2.7	Pass	Min		
A346C	3.2	Pass		Medium	
A348C	3.2	Pass		Medium	
A355C	7.5	Pass			High
A357C	4.8	Pass			High
A359C	4.3	Pass			High
A363C	3.0	Pass		Medium	
A365C	2.5	Pass	Min		
A367C	3.7	Pass		Medium	
A370C	2.8	Pass	Min		

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

AB

Ref	Hrs of Sun	Pass	Quality		
A401C	2.5	Pass	Min		
A404C	5.2	Pass			High
A406C	4.8	Pass			High
A409C	4.8	Pass			High
A424C	3.7	Pass		Medium	
A427C	5.5	Pass			High
A430C	5.5	Pass			High
A433C	5.5	Pass			High
A435C	3.3	Pass		Medium	
A438C	4.5	Pass			High
A441C	4.2	Pass			High
A443C	4.2	Pass			High
A446C	3.7	Pass		Medium	
A448C	5.0	Pass			High
A463C	4.3	Pass			High
A465C	4.3	Pass			High
A467C	4.2	Pass			High
A470C	3.0	Pass		Medium	
A501C	5.2	Pass			High
A504C	5.5	Pass			High
A530C	5.7	Pass			High
A533C	5.7	Pass			High
A535C	5.7	Pass			High
A538C	5.3	Pass			High
A541C	5.0	Pass			High
A543C	5.0	Pass			High
A546C	5.0	Pass			High
A565C	5.0	Pass			High
A567C	5.0	Pass			High
A570C	5.0	Pass			High
	Count	**109**	*Min*	*Medium*	*High*
	Pass	**104**	**30**	**29**	**45**
	Pass Rate	**95%**	**29%**	**28%**	**43%**
	Marginal	**1**			
	PassM	**96%**			

Block C - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

C

Ref	Hrs of Sun	Pass	Quality		
C102C	1.8	Pass	Min		
C105C	1.8	Pass	Min		
C108C	5.0	Pass			High
C111C	4.8	Pass			High
C201C	0.5	Fail			
C204C	2.8	Pass	Min		
C207C	2.2	Pass	Min		
C210C	2.2	Pass	Min		
C213C	5.0	Pass			High
C216C	4.8	Pass			High
C219C	5.5	Pass			High
C221C	2.5	Pass			
C301C	5.3	Pass			High
C304C	3.3	Pass		Medium	
C307C	2.7	Pass	Min		
C310C	3.2	Pass		Medium	
C313C	5.2	Pass			High
C316C	4.8	Pass			High
C319C	5.5	Pass			High
C322C	2.5	Pass			
C401C	5.3	Pass			High
C404C	3.8	Pass		Medium	
C407C	3.2	Pass		Medium	
C410C	3.7	Pass		Medium	
C413C	5.2	Pass			High
C416C	4.8	Pass			High
C419C	5.5	Pass			High
C422C	2.5	Pass			
C501C	5.3	Pass			High
C504C	4.3	Pass			High
C507C	4.8	Pass			High
C510C	4.8	Pass			High
C513C	5.5	Pass			High
C516C	5.5	Pass			High
C519C	5.5	Pass			High
C522C	2.5	Pass			
C601C	5.3	Pass			High
C604C	5.0	Pass			High
C607C	5.5	Pass			High
C616C	4.8	Pass			High

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

C

Ref	Hrs of Sun	Pass	Quality		
C619C	4.8	Pass			High
C622C	5.3	Pass			High
C701C	7.0	Pass			High
C705C	5.5	Pass			High
C719C	5.5	Pass			High
C722C	6.7	Pass			High
	Count	46	Min	Medium	High
	Pass	45	6	5	30
	Pass Rate	98%	15%	12%	73%
	Marginal	0			
	PassM	98%			

Block D - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

D

Ref	Hrs of Sun	Pass	Quality		
D101C	10.3	Pass			High
D104C	3.8	Pass		Medium	
D107C	3.0	Pass		Medium	
D109C	2.3	Pass	Min		
D112C	3.7	Pass		Medium	
D115C	1.3	Marginal			
D117C	2.2	Pass	Min		
D120C	2.2	Pass	Min		
D123C	3.7	Pass		Medium	
D126C	10.3	Pass			High
D201C	10.3	Pass			High
D204C	4.0	Pass			High
D207C	3.7	Pass		Medium	
D209C	3.2	Pass		Medium	
D212C	3.5	Pass		Medium	
D215C	1.5	Pass	Min		
D217C	2.5	Pass	Min		
D220C	2.3	Pass	Min		
D223C	3.7	Pass		Medium	
D226C	10.3	Pass			High
D301C	10.3	Pass			High
D304C	4.3	Pass			High
D307C	4.3	Pass			High
D309C	3.7	Pass		Medium	
D312C	4.0	Pass			High
D315C	1.8	Pass	Min		
D317C	2.8	Pass	Min		
D320C	2.3	Pass	Min		
D323C	3.7	Pass		Medium	
D326C	10.3	Pass			High
D401C	10.3	Pass			High
D404C	5.0	Pass			High
D407C	5.2	Pass			High
D409C	4.3	Pass			High
D412C	4.3	Pass			High
D415C	3.2	Pass		Medium	
D417C	3.0	Pass		Medium	
D420C	2.7	Pass	Min		
D423C	3.8	Pass		Medium	
D426C	10.3	Pass			High

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

D

Ref	Hrs of Sun	Pass	Quality		
D501C	10.3	Pass			High
D504C	4.0	Pass			High
D507C	5.2	Pass			High
D509C	4.8	Pass			High
D512C	5.0	Pass			High
D515C	4.8	Pass			High
D517C	3.7	Pass		Medium	
D520C	3.7	Pass		Medium	
D523C	4.2	Pass			High
D526C	10.2	Pass			High
D601C	10.3	Pass			High
D604C	5.3	Pass			High
D623C	4.3	Pass			High
D626C	10.2	Pass			
	Count	54	Min	Medium	High
	Pass	53	10	15	27
	Pass Rate	98%	19%	29%	52%
	Marginal	1			
	PassM	100%			

Block E - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

E

Ref	Hrs of Sun	Pass	Quality		
E001C	6.3	Pass			*High*
E006C	4.8	Pass			*High*
E007C	7.5	Pass			*High*
E010C	8.0	Pass			*High*
E101C	5.5	Pass			*High*
E106C	2.8	Pass	*Min*		
E107C	5.7	Pass			*High*
E110C	6.0	Pass			*High*
E201C	5.5	Pass			*High*
E206C	3.0	Pass		*Medium*	
E207C	5.7	Pass			*High*
E210C	6.2	Pass			*High*
E301C	6.5	Pass			*High*
E306C	6.3	Pass			*High*
E307C	9.8	Pass			*High*
E310C	10.0	Pass			*High*
	Count	**16**	*Min*	*Medium*	*High*
	Pass	**16**	**1**	**1**	**14**
	Pass Rate	**100%**	**6%**	**6%**	**88%**
	Marginal	0			
	PassM	100%			

Block FG - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

FG

Ref	Hrs of Sun	Pass	Quality		
F101C	3.5	Pass		*Medium*	
F103C	4.3	Pass			*High*
F105C	4.0	Pass			*High*
F109C	4.3	Pass			*High*
F113C	4.3	Pass			*High*
F116C	1.3	Marginal			
F119C	0.0	Fail			
F123C	4.5	Pass			*High*
F124C	3.7	Pass		*Medium*	
F126C	1.0	Fail			
F130C	3.2	Pass		*Medium*	
F133C	3.8	Pass		*Medium*	
F135C	1.7	Pass	*Min*		
F138C	2.2	Pass	*Min*		
F140C	2.8	Pass	*Min*		
F143C	2.3	Pass	*Min*		
F146C	2.2	Pass	*Min*		
F148C	0.8	Fail			
F150C	2.8	Pass	*Min*		
F154C	0.0	Fail			
F156C	3.2	Pass		*Medium*	
F158C	2.8	Pass	*Min*		
F161C	2.3	Pass	*Min*		
F163C	3.2	Pass		*Medium*	
F166C	2.3	Pass	*Min*		
F201C	4.3	Pass			*High*
F203C	4.3	Pass			*High*
F206C	4.0	Pass			*High*
F209C	4.3	Pass			*High*
F213C	4.7	Pass			*High*
F216C	1.3	Marginal			
F219C	0.0	Fail			
F223C	4.5	Pass			*High*
F225C	3.7	Pass		*Medium*	
F228C	4.3	Pass			*High*
F230C	3.5	Pass		*Medium*	
F233C	4.3	Pass			*High*
F235C	2.7	Pass	*Min*		
F238C	2.5	Pass	*Min*		
F240C	3.5	Pass		*Medium*	

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

FG

Ref	Hrs of Sun	Pass	Quality		
F243C	2.7	Pass	*Min*		
F246C	2.5	Pass	*Min*		
F248C	1.3	Marginal			
F253C	1.2	Marginal			
F254C	4.3	Pass			*High*
F256C	4.3	Pass			*High*
F258C	3.5	Pass		*Medium*	
F261C	3.0	Pass		*Medium*	
F263C	3.7	Pass		*Medium*	
F266C	2.3	Pass	*Min*		
F301C	4.3	Pass			*High*
F303C	4.3	Pass			*High*
F306C	4.0	Pass			*High*
F309C	4.3	Pass			*High*
F313C	4.7	Pass			*High*
F316C	0.5	Fail			
F319C	2.2	Pass	*Min*		
F323C	5.3	Pass			*High*
F325C	5.3	Pass			*High*
F327C	3.7	Pass		*Medium*	
F330C	3.8	Pass		*Medium*	
F333C	4.7	Pass			*High*
F335C	2.8	Pass	*Min*		
F338C	2.8	Pass	*Min*		
F340C	4.0	Pass			*High*
F343C	3.2	Pass		*Medium*	
F346C	3.3	Pass		*Medium*	
F348C	3.5	Pass		*Medium*	
F356C	5.3	Pass			*High*
F358C	4.8	Pass			*High*
F361C	3.5	Pass		*Medium*	
F363C	4.3	Pass			*High*
F366C	2.3	Pass	*Min*		
F401C	4.3	Pass			*High*
F403C	4.3	Pass			*High*
F406C	4.3	Pass			*High*
F409C	4.5	Pass			*High*
F427C	6.2	Pass			*High*
F430C	5.5	Pass			*High*
F433C	5.0	Pass			*High*

Block FG - Sunlight results – Tabulated ...\cont

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

FG

Ref	Hrs of Sun	Pass	Quality		
F435C	2.7	Pass	Min		
F438C	3.3	Pass		Medium	
F440C	4.0	Pass			High
F443C	4.0	Pass			High
F446C	4.0	Pass			High
F448C	4.0	Pass			High
F456C	6.3	Pass			High
F458C	5.7	Pass			High
F461C	5.0	Pass			High
F463C	5.0	Pass			High
F466C	5.2	Pass			High
F530C	6.0	Pass			High
F533C	5.5	Pass			High
F535C	3.2	Pass		Medium	
F538C	4.3	Pass			High
F540C	4.3	Pass			High
F543C	4.5	Pass			High
F545C	4.5	Pass			High
	Count	98	Min	Medium	High
	Pass	88	19	20	49
	Pass Rate	90%	22%	23%	56%
	Marginal	4			
	PassM	94%			

Block H - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

H

Ref	Hrs of Sun	Pass	Quality		
H001C	1.7	Pass	Min		
H004C	2.2	Pass	Min		
H006C	7.2	Pass			High
H009C	6.5	Pass			High
H104C	2.7	Pass	Min		
H106C	2.7	Pass	Min		
H109C	0.0	Fail			
H111C	2.2	Pass	Min		
H114C	4.5	Pass			High
H117C	4.3	Pass			High
H119C	3.3	Pass		Medium	
H122C	2.8	Pass	Min		
H124C	5.8	Pass			High
H127C	3.5	Pass		Medium	
H128C	9.7	Pass			High
H129C	9.7	Pass			High
H130C	9.7	Pass			High
H201C	6.7	Pass			High
H203C	4.0	Pass			High
H206C	2.8	Pass	Min		
H208C	0.8	Fail			
H211C	2.5	Pass	Min		
H214C	5.0	Pass			High
H217C	4.7	Pass			High
H219C	3.7	Pass		Medium	
H222C	3.8	Pass		Medium	
H224C	3.0	Pass		Medium	
H301C	6.7	Pass			High
H303C	4.0	Pass			High
H306C	2.8	Pass	Min		
H308C	1.2	Marginal			
H311C	2.8	Pass	Min		
H314C	5.8	Pass			High
H317C	5.0	Pass			High
H319C	4.2	Pass			High
H322C	4.8	Pass			High
H324C	5.8	Pass			High
H401C	6.7	Pass			High
H403C	4.0	Pass			High
H406C	3.3	Pass		Medium	

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

H

Ref	Hrs of Sun	Pass	Quality		
H408C	1.7	Pass	Min		
H411C	3.3	Pass		Medium	
H414C	5.8	Pass			High
H417C	5.3	Pass			High
H419C	4.5	Pass			High
H422C	5.3	Pass			High
H424C	3.0	Pass		Medium	
H501C	3.8	Pass		Medium	
H503C	4.0	Pass			High
H506C	3.8	Pass		Medium	
H508C	2.2	Pass	Min		
H511C	3.8	Pass		Medium	
H514C	6.0	Pass			High
H517C	6.3	Pass			High
H519C	5.7	Pass			High
H522C	5.8	Pass			High
H524C	5.8	Pass			High
H601C	7.2	Pass			High
H603C	4.3	Pass			High
H606C	4.5	Pass			High
H619C	6.3	Pass			High
H622C	6.0	Pass			High
H624C	7.0	Pass			High
	Count	63	Min	Medium	High
	Pass	60	12	11	37
	Pass Rate	95%	20%	18%	62%
	Marginal	1			
	PassM	97%			

Block J - Sunlight results - Tabulated

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

J

Ref	Hrs of Sun	Pass	Quality		
J002C	9.7	Pass			*High*
J005C	9.3	Pass			*High*
J006C	3.3	Pass		*Medium*	
J008C	4.3	Pass			*High*
J101C	9.3	Pass			*High*
J104C	4.3	Pass			*High*
J106C	4.3	Pass			*High*
J108C	2.7	Pass	*Min*		
J111C	4.3	Pass			*High*
J114C	0.3	Fail			
J117C	2.7	Pass	*Min*		
J121C	3.2	Pass		*Medium*	
J124C	7.0	Pass			*High*
J201C	9.3	Pass			*High*
J204C	4.3	Pass			*High*
J206C	4.3	Pass			*High*
J208C	2.7	Pass	*Min*		
J211C	4.3	Pass			*High*
J214C	1.3	Marginal			
J217C	3.2	Pass		*Medium*	
J219C	2.3	Pass	*Min*		
J221C	3.3	Pass		*Medium*	
J224C	7.0	Pass			*High*
J301C	9.3	Pass			*High*
J304C	4.3	Pass			*High*
J306C	4.3	Pass			*High*
J308C	2.7	Pass	*Min*		
J311C	4.3	Pass			*High*
J314C	2.2	Pass	*Min*		
J317C	3.8	Pass		*Medium*	
J319C	2.8	Pass	*Min*		
J321C	3.8	Pass		*Medium*	
J324C	7.0	Pass			*High*
J401C	9.3	Pass			*High*
J404C	4.3	Pass			*High*
J406C	4.3	Pass			*High*
J408C	2.7	Pass	*Min*		
J411C	4.3	Pass			*High*
J414C	3.3	Pass		*Medium*	
J417C	4.7	Pass			*High*

Sunlight to rooms

Receives 1.5 hours of sunlight on 21st March

J

Ref	Hrs of Sun	Pass	Quality		
J419C	4.5	Pass			*High*
J421C	4.5	Pass			*High*
J424C	7.3	Pass			*High*
J501C	9.3	Pass			*High*
J504C	4.3	Pass			*High*
J506C	4.3	Pass			*High*
J508C	4.3	Pass			*High*
J511C	4.3	Pass			*High*
J514C	6.2	Pass			*High*
J517C	5.8	Pass			*High*
J519C	5.2	Pass			*High*
J521C	5.2	Pass			*High*
J524C	9.7	Pass			*High*
	Count	**53**	*Min*	*Medium*	*High*
	Pass	**51**	**8**	**7**	**36**
	Pass Rate	**96%**	**16%**	**14%**	**71%**
	Marginal	1			
	PassM	98%			

Summary – Sunlight living rooms for all blocks.

A summary for pass results for all blocks is detailed below.

	Sunlight % Pass	
	BRE v3	Incl Marginal
	Pass %	Pass %
AB	95%	96%
C	98%	98%
D	98%	100%
E	100%	100%
FG	90%	94%
H	95%	97%
J	96%	98%
Total	**95%**	**97%**

Most windows receive some sunlight and the number that face North are small.
95% of living rooms are complaint (97% if we include marginals)

The BRE guidelines accept that it is not possible for all living spaces to face the sun and are pragmatic in this regard. The guidelines provide guidance in this regard with a 4/5 or 80% compliance being considered as "careful layout design".

These results are consistent with the BRE guidelines recommend pass rate for apartment developments of 80%.

THIS SUMMARY OF RESULTS IS TRANSFERRED TO MAIN BODY OF THE REPORT.

Appendix 4
Shadow to Private Amenity Spaces (Balconies)

Amenity spaces to private balconies are shown here.

There is no specific requirement in the BRE guidelines for Private balconies to be tested.
Results are provided for information only.

Results for the shared amenity spaces are detailed in the main body of the report.

For analysis based on Sunlight the BRE guideline 80% compliance is consistent with "Careful Design"

THE SUMMARY OF RESULTS FOR THIS APPENDIX IS TRANSFERRED TO MAIN BODY OF THE REPORT.

All Blocks – Sunlight/Shadow Balconies results – Graphic

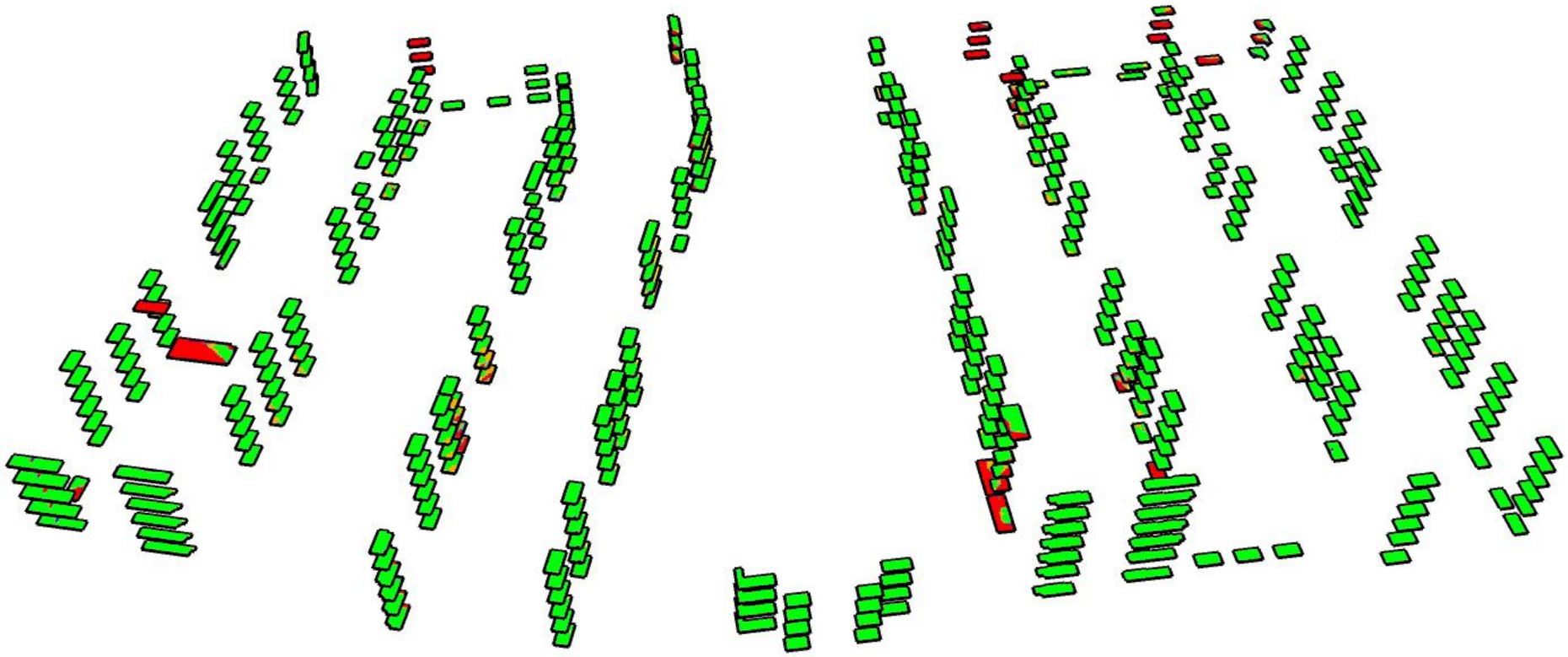
There is no specific requirement in the BRE guidelines for Private balconies to be tested.
Results are provided for information only.

BRE 2-hour Shadow Plots

The graphic below indicates the areas which receive 2 hours of sunlight on the 21st March in accordance with the BRE guidelines.

- **Green** represents areas which exceed the 2-hour requirement - pass.
- **Red** is less than the 2-hour requirement - fail.
- **Orange** are marginal or borderline - just below the 2-hour requirement.

Graphically we can see that the majority of balconies receive excellent sunlight and only those balconies which necessarily face North will receive less than the required sunlight.



Block AB – Sunlight/Shadow Balconies results - Tabulated

AB	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
AB	01-1st	A1	89%	Pass
AB	01-1st	A6	77%	Pass
AB	01-1st	A9	91%	Pass
AB	01-1st	A11	96%	Pass
AB	01-1st	A14	85%	Pass
AB	01-1st	A17	51%	Pass
AB	01-1st	A24	40%	
AB	01-1st	A27	98%	Pass
AB	01-1st	A30	98%	Pass
AB	01-1st	A33	99%	Pass
AB	01-1st	A35	87%	Pass
AB	01-1st	A38	99%	Pass
AB	01-1st	A41	100%	Pass
AB	01-1st	A43	82%	Pass
AB	01-1st	A46	92%	Pass
AB	01-1st	A48	98%	Pass
AB	01-1st	A51	100%	Pass
AB	01-1st	A53	100%	Pass
AB	01-1st	A55	100%	Pass
AB	01-1st	A58	99%	Pass
AB	01-1st	A63	73%	Pass
AB	01-1st	A65	63%	Pass
AB	01-1st	A67	100%	Pass
AB	01-1st	A70	99%	Pass
AB	02-2nd	A1	92%	Pass
AB	02-2nd	A4	99%	Pass
AB	02-2nd	A6	71%	Pass
AB	02-2nd	A9	89%	Pass
AB	02-2nd	A11	99%	Pass
AB	02-2nd	A14	99%	Pass
AB	02-2nd	A17	69%	Pass
AB	02-2nd	A24	88%	Pass
AB	02-2nd	A27	99%	Pass
AB	02-2nd	A30	99%	Pass
AB	02-2nd	A33	99%	Pass

AB	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
AB	02-2nd	A35	90%	Pass
AB	02-2nd	A38	100%	Pass
AB	02-2nd	A41	100%	Pass
AB	02-2nd	A46	99%	Pass
AB	02-2nd	A63	91%	Pass
AB	02-2nd	A65	85%	Pass
AB	02-2nd	A67	100%	Pass
AB	02-2nd	A70	99%	Pass
AB	03-3rd	A1	96%	Pass
AB	03-3rd	A4	100%	Pass
AB	03-3rd	A6	71%	Pass
AB	03-3rd	A9	91%	Pass
AB	03-3rd	A11	100%	Pass
AB	03-3rd	A14	100%	Pass
AB	03-3rd	A17	74%	Pass
AB	03-3rd	A24	88%	Pass
AB	03-3rd	A27	99%	Pass
AB	03-3rd	A30	99%	Pass
AB	03-3rd	A33	99%	Pass
AB	03-3rd	A35	95%	Pass
AB	03-3rd	A38	100%	Pass
AB	03-3rd	A41	100%	Pass
AB	03-3rd	A46	99%	Pass
AB	03-3rd	A63	97%	Pass
AB	03-3rd	A65	97%	Pass
AB	03-3rd	A67	100%	Pass
AB	03-3rd	A70	100%	Pass
AB	04-4th	A1	99%	Pass

AB	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
AB	04-4th	A4	100%	Pass
AB	04-4th	A6	71%	Pass
AB	04-4th	A9	91%	Pass
AB	04-4th	A24	88%	Pass
AB	04-4th	A27	100%	Pass
AB	04-4th	A30	99%	Pass
AB	04-4th	A33	99%	Pass
AB	04-4th	A35	96%	Pass
AB	04-4th	A38	100%	Pass
AB	04-4th	A41	100%	Pass
AB	04-4th	A46	100%	Pass
AB	04-4th	A63	100%	Pass
AB	04-4th	A65	100%	Pass
AB	04-4th	A67	100%	Pass
AB	04-4th	A70	100%	Pass
AB	05-5th	A1	100%	Pass
AB	05-5th	A4	100%	Pass
AB	05-5th	A30	100%	Pass
AB	05-5th	A33	100%	Pass
AB	05-5th	A35	100%	Pass
AB	05-5th	A38	100%	Pass
AB	05-5th	A41	100%	Pass
AB	05-5th	A46	100%	Pass
AB	05-5th	A65	100%	Pass
AB	05-5th	A67	100%	Pass
AB	05-5th	A70	100%	Pass
			Count	89
			Pass	88
			Pass Rate	99%
			Marginal	0
			incl. Marginal	99%

AB	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass

Block C – Sunlight/Shadow Balconies results - Tabulated

C	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
C	01-1st	A2	78%	Pass
C	01-1st	A5	74%	Pass
C	01-1st	A8	99%	Pass
C	01-1st	A11	99%	Pass
C	02-2nd	A1	75%	Pass
C	02-2nd	A4	98%	Pass
C	02-2nd	A7	85%	Pass
C	02-2nd	A10	86%	Pass
C	02-2nd	A13	99%	Pass
C	02-2nd	A16	99%	Pass
C	03-3rd	A1	97%	Pass
C	03-3rd	A4	99%	Pass
C	03-3rd	A7	95%	Pass
C	03-3rd	A10	97%	Pass
C	03-3rd	A13	99%	Pass
C	03-3rd	A16	99%	Pass
C	03-3rd	A19	100%	Pass
C	03-3rd	A22	99%	Pass
C	04-4th	A1	99%	Pass
C	04-4th	A4	99%	Pass
C	04-4th	A7	97%	Pass
C	04-4th	A10	98%	Pass
C	04-4th	A13	99%	Pass
C	04-4th	A16	99%	Pass
C	04-4th	A19	100%	Pass
C	04-4th	A22	99%	Pass
C	05-5th	A1	99%	Pass
C	05-5th	A4	99%	Pass
C	05-5th	A7	99%	Pass
C	05-5th	A10	100%	Pass
C	05-5th	A13	100%	Pass
C	05-5th	A16	100%	Pass
C	05-5th	A19	100%	Pass
C	05-5th	A22	99%	Pass
C	06-6th	A1	99%	Pass
C	06-6th	A4	100%	Pass
C	06-6th	A7	100%	Pass
C	06-6th	A16	0%	

C	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
C	06-6th	A19	100%	Pass
C	06-6th	A22	99%	Pass
C	07-7th	A1	94%	Pass
C	07-7th	A5	15%	
C	07-7th	A19	100%	Pass
C	07-7th	A22	99%	Pass
			Count	44
			Pass	42
			Pass Rate	95%
			Marginal	0
			incl. Marginal	95%

Block D – Sunlight/Shadow Balconies results - Tabulated

D	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
D	01-1st	A1	100%	Pass
D	01-1st	A4	99%	Pass
D	01-1st	A7	96%	Pass
D	01-1st	A12	99%	Pass
D	01-1st	A15	22%	
D	01-1st	A17	63%	Pass
D	01-1st	A20	92%	Pass
D	01-1st	A23	90%	Pass
D	01-1st	A26	96%	Pass
D	02-2nd	A1	100%	Pass
D	02-2nd	A4	99%	Pass
D	02-2nd	A7	99%	Pass
D	02-2nd	A12	100%	Pass
D	02-2nd	A15	45%	Marginal
D	02-2nd	A17	75%	Pass
D	02-2nd	A23	99%	Pass
D	02-2nd	A26	96%	Pass
D	03-3rd	A1	100%	Pass
D	03-3rd	A4	99%	Pass
D	03-3rd	A7	100%	Pass
D	03-3rd	A12	100%	Pass
D	03-3rd	A15	74%	Pass
D	03-3rd	A17	91%	Pass
D	03-3rd	A23	99%	Pass
D	03-3rd	A26	96%	Pass
D	04-4th	A1	100%	Pass
D	04-4th	A4	99%	Pass
D	04-4th	A7	100%	Pass
D	04-4th	A12	100%	Pass
D	04-4th	A15	92%	Pass
D	04-4th	A17	98%	Pass
D	04-4th	A23	99%	Pass
D	04-4th	A26	96%	Pass

D	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
D	05-5th	A1	100%	Pass
D	05-5th	A4	99%	Pass
D	05-5th	A7	100%	Pass
D	05-5th	A12	100%	Pass
D	05-5th	A15	100%	Pass
D	05-5th	A17	99%	Pass
D	05-5th	A23	99%	Pass
D	05-5th	A26	100%	Pass
D	06-6th	A1	100%	Pass
D	06-6th	A4	100%	Pass
D	06-6th	A23	100%	Pass
D	06-6th	A26	98%	Pass
			Count	45
			Pass	43
			Pass Rate	96%
			Marginal	1
			incl. Marginal	98%

Block E – Sunlight/Shadow Balconies results - Tabulated

E	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
E	00-GFL	A1	100%	Pass
E	00-GFL	A6	99%	Pass
E	00-GFL	A7	100%	Pass
E	00-GFL	A10	100%	Pass
E	01-1st	A1	100%	Pass
E	01-1st	A6	99%	Pass
E	01-1st	A7	100%	Pass
E	01-1st	A10	100%	Pass
E	02-2nd	A1	100%	Pass
E	02-2nd	A6	99%	Pass
E	02-2nd	A7	100%	Pass
E	02-2nd	A10	100%	Pass
E	03-3rd	A1	100%	Pass
E	03-3rd	A6	99%	Pass
E	03-3rd	A7	100%	Pass
E	03-3rd	A10	100%	Pass
			Count	16
			Pass	16
			Pass Rate	100%

E	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass

Block FG – Sunlight/Shadow Balconies results - Tabulated

FG	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
FG	01-1st	A1	100%	Pass
FG	01-1st	A3	100%	Pass
FG	01-1st	A5	100%	Pass
FG	01-1st	A9	98%	Pass
FG	01-1st	A13	70%	Pass
FG	01-1st	A16	0%	
FG	01-1st	A19	0%	
FG	01-1st	A24	0%	
FG	01-1st	A26	0%	
FG	01-1st	A30	81%	Pass
FG	01-1st	A33	62%	Pass
FG	01-1st	A35	99%	Pass
FG	01-1st	A38	81%	Pass
FG	01-1st	A40	42%	Marginal
FG	01-1st	A43	66%	Pass
FG	01-1st	A46	72%	Pass
FG	01-1st	A50	94%	Pass
FG	01-1st	A54	98%	Pass
FG	01-1st	A56	100%	Pass
FG	01-1st	A58	99%	Pass
FG	01-1st	A61	88%	Pass
FG	01-1st	A63	85%	Pass
FG	01-1st	A66	97%	Pass
FG	02-2nd	A1	100%	Pass
FG	02-2nd	A3	99%	Pass
FG	02-2nd	A6	98%	Pass
FG	02-2nd	A9	98%	Pass
FG	02-2nd	A13	36%	
FG	02-2nd	A23	100%	Pass
FG	02-2nd	A25	99%	Pass
FG	02-2nd	A28	99%	Pass
FG	02-2nd	A30	99%	Pass
FG	02-2nd	A33	74%	Pass
FG	02-2nd	A35	99%	Pass
FG	02-2nd	A38	100%	Pass
FG	02-2nd	A40	95%	Pass
FG	02-2nd	A43	93%	Pass

FG	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
FG	02-2nd	A46	95%	Pass
FG	02-2nd	A53	99%	Pass
FG	02-2nd	A54	99%	Pass
FG	02-2nd	A61	98%	Pass
FG	02-2nd	A63	100%	Pass
FG	02-2nd	A66	100%	Pass
FG	03-3rd	A1	100%	Pass
FG	03-3rd	A3	99%	Pass
FG	03-3rd	A6	98%	Pass
FG	03-3rd	A9	99%	Pass
FG	03-3rd	A13	43%	Marginal
FG	03-3rd	A23	100%	Pass
FG	03-3rd	A25	100%	Pass
FG	03-3rd	A27	99%	Pass
FG	03-3rd	A30	99%	Pass
FG	03-3rd	A33	77%	Pass
FG	03-3rd	A35	99%	Pass
FG	03-3rd	A38	100%	Pass
FG	03-3rd	A40	99%	Pass
FG	03-3rd	A43	97%	Pass
FG	03-3rd	A46	100%	Pass
FG	03-3rd	A61	99%	Pass
FG	03-3rd	A63	100%	Pass
FG	03-3rd	A66	100%	Pass
FG	04-4th	A1	100%	Pass
FG	04-4th	A3	99%	Pass
FG	04-4th	A6	100%	Pass
FG	04-4th	A9	100%	Pass
FG	04-4th	A27	100%	Pass
FG	04-4th	A30	99%	Pass
FG	04-4th	A33	86%	Pass
FG	04-4th	A35	99%	Pass

FG	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
FG	04-4th	A38	100%	Pass
FG	04-4th	A40	100%	Pass
FG	04-4th	A43	100%	Pass
FG	04-4th	A61	100%	Pass
FG	04-4th	A63	100%	Pass
FG	04-4th	A66	100%	Pass
FG	05-5th	A30	100%	Pass
FG	05-5th	A33	90%	Pass
FG	05-5th	A35	99%	Pass
FG	05-5th	A38	100%	Pass
FG	05-5th	A40	100%	Pass
FG	05-5th	A45	0%	
			Count	81
			Pass	73
			Pass Rate	90%
			Marginal	2
			incl. Marginal	93%

FG	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass

Block H – Sunlight/Shadow Balconies results - Tabulated

H	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
H	00-GFL	A1	0%	
H	00-GFL	A4	17%	
H	00-GFL	A6	85%	Pass
H	00-GFL	A9	85%	Pass
H	01-1st	A4	0%	
H	01-1st	A6	96%	Pass
H	01-1st	A9	38%	
H	01-1st	A11	100%	Pass
H	01-1st	A14	97%	Pass
H	01-1st	A17	99%	Pass
H	01-1st	A19	94%	Pass
H	01-1st	A22	26%	
H	01-1st	A24	98%	Pass
H	01-1st	A27	99%	Pass
H	01-1st	A28	100%	Pass
H	01-1st	A29	100%	Pass
H	01-1st	A30	100%	Pass
H	02-2nd	A1	98%	Pass
H	02-2nd	A6	93%	Pass
H	02-2nd	A11	93%	Pass
H	02-2nd	A14	98%	Pass
H	02-2nd	A17	99%	Pass
H	02-2nd	A19	97%	Pass
H	02-2nd	A22	46%	Marginal
H	02-2nd	A24	97%	Pass
H	03-3rd	A1	99%	Pass
H	03-3rd	A6	92%	Pass
H	03-3rd	A11	94%	Pass
H	03-3rd	A14	96%	Pass
H	03-3rd	A17	99%	Pass
H	03-3rd	A19	95%	Pass
H	03-3rd	A22	78%	Pass
H	03-3rd	A24	98%	Pass
H	04-4th	A1	99%	Pass
H	04-4th	A6	93%	Pass

H	Sunlight Amenity			
	>50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
H	04-4th	A11	95%	Pass
H	04-4th	A14	97%	Pass
H	04-4th	A17	100%	Pass
H	04-4th	A19	96%	Pass
H	04-4th	A22	84%	Pass
H	04-4th	A24	97%	Pass
H	05-5th	A1	99%	Pass
H	05-5th	A6	93%	Pass
H	05-5th	A11	96%	Pass
H	05-5th	A14	98%	Pass
H	05-5th	A17	100%	Pass
H	05-5th	A19	98%	Pass
H	05-5th	A22	86%	Pass
H	05-5th	A24	98%	Pass
H	06-6th	A1	100%	Pass
H	06-6th	A6	96%	Pass
H	06-6th	A19	98%	Pass
H	06-6th	A22	66%	Pass
H	06-6th	A24	98%	Pass
			Count	54
			Pass	48
			Pass Rate	89%
			Marginal	1
			incl. Marginal	91%

Block J – Sunlight/Shadow Balconies results - Tabulated

J	Sunlight Amenity >50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
J	00-GFL	A2	100%	Pass
J	00-GFL	A5	100%	Pass
J	00-GFL	A6	100%	Pass
J	00-GFL	A8	100%	Pass
J	01-1st	A1	100%	Pass
J	01-1st	A6	99%	Pass
J	01-1st	A14	89%	Pass
J	01-1st	A17	91%	Pass
J	01-1st	A21	92%	Pass
J	01-1st	A24	100%	Pass
J	02-2nd	A1	100%	Pass
J	02-2nd	A6	99%	Pass
J	02-2nd	A14	98%	Pass
J	02-2nd	A17	98%	Pass
J	02-2nd	A21	99%	Pass
J	02-2nd	A24	100%	Pass
J	03-3rd	A1	100%	Pass
J	03-3rd	A6	99%	Pass
J	03-3rd	A14	99%	Pass
J	03-3rd	A17	99%	Pass
J	03-3rd	A21	99%	Pass
J	03-3rd	A24	100%	Pass
J	04-4th	A1	100%	Pass
J	04-4th	A6	99%	Pass
J	04-4th	A14	99%	Pass
J	04-4th	A17	99%	Pass

J	Sunlight Amenity >50% receives 2 hours of sunlight on 21st March			
Bld	Floor	Win	Shadow	Pass
J	04-4th	A21	99%	Pass
J	04-4th	A24	100%	Pass
J	05-5th	A1	100%	Pass
J	05-5th	A6	100%	Pass
J	05-5th	A14	100%	Pass
J	05-5th	A17	100%	Pass
J	05-5th	A21	100%	Pass
J	05-5th	A24	100%	Pass
			Count	34
			Pass	34
			Pass Rate	100%
			Marginal	0
			incl. Marginal	100%

Summary - Sunlight/Shadow Balconies for all blocks

A summary for pass results for all blocks is detailed below.

	Sunlight / Shadow	
		Incl Marginal
	Pass %	Pass %
AB	99%	99%
C	95%	95%
D	96%	96%
E	100%	100%
FG	90%	93%
H	89%	91%
J	100%	100%
Total	95%	96%

There is no specific requirement in the BRE guidelines for Private balconies to be tested. Results are provided for information only.

95% of private balconies comply with the BRE requirements.

The BRE guidelines accept that it is not possible for all living spaces / amenities to face the sun and are pragmatic in this regard. The guidelines provide guidance in this regard with a 4/5 or 80% compliance being considered as "careful layout design".

These results are consistent with the BRE guidelines recommend pass rate for apartment developments of 80%.

THIS SUMMARY OF RESULTS IS TRANSFERRED TO MAIN BODY OF THE REPORT.

Appendix 5 – Alternative Assessments Neighbour's Amenity North

Some alternative assessments for the private Amenity Spaces North

For Comparison with the best practice BRE guidelines

- *BRE results*
- *Monthly assessment of Amenity space impact*
- *Yearly assessment of sunlight based on Probably Sunlight Hours.*

Impact Neighbours' Amenities North

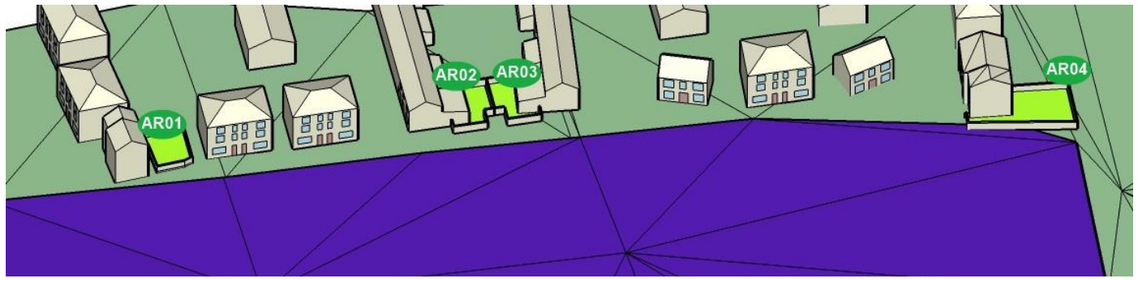
BRE Analysis

The BRE Shadow analysis was completed in accordance with best practice guidelines and requoted below.

Shadow/Sunlight - Clause 3.3.17

> *It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March.*

The gardens under consideration are as follows:



Test Residential Amenity - Gardens

The results are tabulated below:

		Shadow to amenity spaces			
	Design	**2-hour Sunlight - 21st March**			
		Check > 50% or ratio > 0.8			
Zone	**Description**	**Existing**	**Proposed**	**Ratio**	**Result**
AR01	Private Residential North	82%	81%	0.98	Pass
AR02	Private Residential North	72%	72%	1.00	Pass
AR03	Private Residential North	71%	71%	1.00	Pass
AR04	Private Residential North	72%	66%	0.92	Pass

Note: When the proposed value exceeds the minimum requirement the ratio check is not required, and the result is coloured grey.

Impact was nominal with change ratios better than **0.90**

Alternative Analysis 1 – 2hr Sunlight Check Monthly

We have also examined the impact on a month-by-month basis using the same 2hr Metric for each garden. Only the 21st of March is relevant to the BRE check.

		Shadow to amenity spaces				
Amenity	**AR01**	**2-hour Sunlight - 21st March**				
		Check > 50% or ratio > 0.8				
Month		**Existing**	**Proposed**	**Ratio**	**Result**	
21st January		42	0	0.00		
21st February		68	11	0.17		
21st March		82	81	0.98	Pass	BRE Check
21st April		88	88	1.00		
21st May		91	91	1.00		
21st June		92	92	1.00		
21st July		91	91	1.00		
21st Aug		88	88	1.00		
21st Sept		82	80	0.99		
21st Oct		67	2	0.04		
21st Nov		41	0	0.00		
21st Dec		25	0	0.00		
Note: BRE Check only relates to 21st March Date						

		Shadow to amenity spaces				
Amenity	**AR02**	**2-hour Sunlight - 21st March**				
		Check > 50% or ratio > 0.8				
Month		**Existing**	**Proposed**	**Ratio**	**Result**	
21st January		4	0	0.00		
21st February		50	32	0.65		
21st March		72	72	1.00	Pass	BRE Check
21st April		82	82	1.00		
21st May		89	89	1.00		
21st June		91	91	1.00		
21st July		89	89	1.00		
21st Aug		82	82	1.00		
21st Sept		70	70	1.00		
21st Oct		48	28	0.59		
21st Nov		3	0	0.00		
21st Dec		0	0			
Note: BRE Check only relates to 21st March Date						

		Shadow to amenity spaces				
Amenity	**AR03**	**2-hour Sunlight - 21st March**				
		Check > 50% or ratio > 0.8				
Month		**Existing**	**Proposed**	**Ratio**	**Result**	
21st January		17	6	0.34		
21st February		51	50	0.99		
21st March		**71**	**71**	**1.00**	**Pass**	**BRE Check**
21st April		83	83	1.00		
21st May		91	91	1.00		
21st June		92	92	1.00		
21st July		91	91	1.00		
21st Aug		84	84	1.00		
21st Sept		71	71	1.00		
21st Oct		50	49	0.98		
21st Nov		16	4	0.28		
21st Dec		4	0	0.00		
Note: BRE Check only relates to 21st March Date						

		Shadow to amenity spaces				
Amenity	**AR04**	**2-hour Sunlight - 21st March**				
		Check > 50% or ratio > 0.8				
Month		**Existing**	**Proposed**	**Ratio**	**Result**	
21st January		33	0	0.00		
21st February		54	43	0.80		
21st March		**72**	**66**	**0.91**	**Pass**	**BRE Check**
21st April		88	88	1.00		
21st May		97	97	1.00		
21st June		98	98	1.00		
21st July		97	97	1.00		
21st Aug		88	88	1.00		
21st Sept		72	67	0.92		
21st Oct		53	41	0.77		
21st Nov		32	0	0.00		
21st Dec		19	0	0.00		
Note: BRE Check only relates to 21st March Date						

There is little to no impact for most of the year between March and September. In the winter months the lower sun casts longer shadows but for a limited time and this proposed development South will have some impact. However, the sun amenity in these months is limited.
This analysis is theoretical and does not consider the overcast nature of this time of the year.

Alternative Analysis 2 – Yearly Sunlight availability APSH

We have been asked to quantify the yearly impact on sunlight. We have chosen to utilise the APSH analysis method which work equally well in horizontal and vertical orientation. Four representative locations were chosen in the centre of the main body of each rear garden.
The analysis was run excluding any vegetation and thus is conservative.

"APSH is the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account) it is localised to the test area in this case Dublin."

Results for these 4 test points are tabulated below. We have shown the changes to sunlight based on the Annual Probable Sunlight Hours APSH for the entire year as an indication of the statistical probable sunlight impact.

		Annual Hours - APSH		
Amenity		**Existing**	**Proposed**	**Ratio**
AR01		48	39	0.82
AR02		43	39	0.92
AR03		48	48	0.99
AR04		68	57	0.84

The average annual change ratio is a low approx. **0.89.**

Summary

Impact Neighbours Amenity – Rear Gardens – Alternative Analysis.

- **Standard BRE Shadow impact**: All gardens pass the 2hr test requirements for the 21st March.
  - The change ratio is **0.90** (shows nominal change).
- **2hr Sunlight Check Monthly**
  - There is little to no impact for most of the year between March and September.
  - In the winter months the lower sun casts longer shadows but for a limited time and this proposed development South will have some impact.
  - However, the sun amenity in these months is limited.
  - This analysis is theoretical and does not consider the overcast nature of this time of the year.
- **Sunlight availability APSH & WPSH:** there is only a nominal reduction in the sunlight available over the entire year APSH period. Change ratio for APSH: **0.89**
- The results of these alternative assessments as expected correlate and show similar low/no impact results.

The BRE analysis shows little impact to the amount of these gardens that can receive 2hrs of sunlight on the 21st March and is compliant with the guidelines.

The alternative assessments support the BRE analysis that impact caused by the development will be minimal.

Appendix 6 – Alternative Assessments Proposed Shared & Public Amenity

A supporting alternative assessment for proposed Amenity

For Comparison with the best practice BRE guidelines

- *BRE results*
- *Monthly assessment of Amenity space impact*

Proposed Amenities Public and Shared

BRE Analysis

The BRE Shadow analysis was completed in accordance with best practice guidelines and requoted below.

Shadow/Sunlight - Clause 3.3.17

> *It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March.*

The Amenity spaces under consideration are as follows:

Proposed

The results are tabulated below:

Shadow / Sunlight Amenity				
>50% receives 2 hours of sunlight on 21st March)				
		Ref	% 2hr Sunlight	Check
	AP01	Central Public Zone	91.4	Pass
	AS01	Shared within ABCD	89.8	Pass
	AS02	Shared within FGHJ	86.3	Pass

Alternative Analysis – 2hr Sunlight Check Monthly

We have also examined the impact on a month-by-month basis using the same 2hr Metric for each Amenity. Only the 21st of March is relevant to the BRE check.

		Shadow to amenity spaces		
Amenity	**AP01**	**2-hour Sunlight - 21st March**		
	Central Public Zone	*BRE Check >50% receives 2 hours of sunlight on 21st March)*		
Month		**% 2hr Sunlight**	**Check**	
21st January		60.6		
21st February		83.6		
21st March		**91.4**	**Pass**	**BRE Check**
21st April		94.3		
21st May		95.9		
21st June		96.4		
21st July		95.9		
21st Aug		94.4		
21st Sept		91.5		
21st Oct		82.6		
21st Nov		59.3		
21st Dec		41.5		
Note: BRE Check only relates to 21st March Date				

		Shadow to amenity spaces		
Amenity	**AS01**	**2-hour Sunlight - 21st March**		
	Shared within ABCD	*BRE Check >50% receives 2 hours of sunlight on 21st March)*		
Month		**% 2hr Sunlight**	**Check**	
21st January		30.4		
21st February		79.9		
21st March		**89.8**	**Pass**	**BRE Check**
21st April		95.5		
21st May		97.7		
21st June		98.0		
21st July		97.8		
21st Aug		95.6		
21st Sept		89.9		
21st Oct		79.0		
21st Nov		28.9		
21st Dec		22.0		
Note: BRE Check only relates to 21st March Date				

		Shadow to amenity spaces		
Amenity	**AS02**	**2-hour Sunlight - 21st March**		
	Shared within FGHJ	*BRE Check >50% receives 2 hours of sunlight on 21st March)*		
Month		**% 2hr Sunlight**	**Check**	
21st January		28.7		
21st February		70.9		
21st March		**86.3**	**Pass**	**BRE Check**
21st April		92.3		
21st May		94.9		
21st June		95.4		
21st July		94.9		
21st Aug		92.4		
21st Sept		86.5		
21st Oct		70.0		
21st Nov		26.7		
21st Dec		11.6		
Note: BRE Check only relates to 21st March Date				

We can see that the BRE check on the 21st March test day is representative of the availability of Sunlight/Shadow over the course of the entire year.

As expected, the compliant percentage increases in the summer months and reduces in the winter.

Summary

Sunlight/Shadow to Proposed Amenities Public and Shared

- **Standard BRE Shadow check**: All shared & public spaces gardens pass the 2hr test requirements for the 21st March with high percentage rates 85-90% well in excess of the 50% requirement.
- **Alternative Analysis - 2hr Sunlight Check Monthly**
  - We can see that the BRE check on the 21st March test day is representative of the availability of Sunlight/Shadow over the course of the entire year.
  - As expected, the compliant percentage increases in the summer months and reduces in the winter.
  - The results show that the provided spaces have the potential to be well sun lit thoughout the year with little space in shadow.
- The results of this alternative assessment as expected correlates and shows similar results to the standard BRE test.

The BRE analysis on the 21st March shows that the provided Shared and Public Amenity spaces are fully compliant with the guidelines.

The alternative assessment supports the BRE analysis that these spaces receive excellent sunlight.

Appendix 7
Light Distribution
Target Illuminance ET Metric
Non-Annex Analysis
(Design Standards & Guidelines)

Light analysis results are presented on a block-by-block basis below.

Only floors with residential units are presented.

Design Standards / Guidelines
Light Distribution.

BRE v2 – 2011 / BS 8206-2

The original BRE guidelines "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice – Second Edition - 2011" was cross-referenced to and from the now withdrawn BS 8206-2 : 2008.

It looked at light distribution within a room based on Average Daylight Factor ADF (an average over the entire room surface) and was based off the CIE overcast sky and results of rooms were based on obstructions, room geometry, ope sizes, radiance and transmittance but was constant from location to location on the globe.

The guidelines and BS standard took into account room usage placing higher degrees of importance on living spaces than to bedrooms, which is a reasonable consideration, given that bedrooms are typically used more at night.

Given that these Standard and Guidelines are withdrawn tests such as ADF are no longer relevant.

BRE v3 – 2022 / EN 17037

The new BRE guidelines "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice – Third Edition - 2022" provides best guidelines for analysing development while referencing relevant elements of EN 17037 similar to how the withdrawn BRE v2 – 2011 provided best guidelines for analysing development referencing relevant elements of withdrawn BS 8206- 2.
This best practice guideline has been considered the de-facto standard since 1991 and details how to apply EN 17037.

Impact on neighbours and shadow elements are handled only within the BRE guidelines but the EN standard covers some elements of development performance

EN 17037 also looks at internal light distribution/daylight but in terms of target illuminance over a specific percentage of a room. Target illuminance is driven by the available external light which varies by location on the globe. However, the internal room lux targets Lx we strive to achieve remain unchanged.

There are various tables of requirements (minimum, medium and high), and these are defined for all rooms and do not consider the rooms usage. The minimum targets are

Rooms	300lx over 50% of room area
AND	100lx over 95% of room area

Localisation

The EN 17037 is designed to be localised and a blank National Annex is provided in for that purpose.

This is an acknowledgement that design will vary in different countries and that adjustment will be needed to take into account available external light which itself drives the internal lux results and other design constraints / objectives. The Irish version of this standard IS EN17037 currently has no specific National Annex

The UK committee, in their examination of this provided recommendations which are pulled through to the National Annex in the UK variant of this document BS EN 17037

Given the similarity of weather, light and design patterns between Ireland and the UK in many areas and the absence of specific localisation Annex information in the IS version it is not unreasonable to apply the BS recommendations at this time. There is considerable precedence in the adoption of such technical recommendations in the engineering and indeed legal professions.

The UK committee acknowledged the difficulty of achieving the primary lux targets outlined in the main body of the report particularly in dwellings in our climates. The Annex recommendations are focused on dwellings which is the subject of the vast majority of our reports. The committee again re-affirmed their commitment that room usage should be considered and set lower target illuminance values accordingly for dwellings based on the same.

Bedroom	100lx over 50% of room area
Living Rooms	150lx over 50% of room area
Kitchens	200lx over 50% of room area

Dual usage rooms use the higher value.

These targets were derived from BS 8206-2:2008 Lighting for buildings – Part 2: Code of practice for daylighting, targets have served us well in the past and which have been the staple for design for years. We have dual run multiple projects BRE v2 (ADF) vs BRE v3 Annex (Et) and as expected they show very similar compliance rates.

Furthermore, the UK committee decided that the target illuminance across the entire (i.e. 95 %) **need not** be applied to rooms in dwellings.

Analysis

We concur with the UK committees' recommendations for daylight provision in a space may not be achievable for some buildings, particularly dwellings and that a target illuminance level should be achieved across the entire (i.e. 95 %) fraction of the reference plane within a space – need **not** be applied to rooms in dwellings.

The targets defined in the National Annex are linked to the targets have served us well in the past and have been the staple for design for years.

The primary results have thus been compiled based on the UK Annex NA targets, tabulated in Appendix 2.

We have for the avoidance of doubt also provided results based on the non-annex Standard, here in Appendix 7. The results for which show that the conclusions of the UK committee were justified and that the standard (non-Annex) targets are unlikely to be achieved in a more densely developed residential sites.

The naming convention for rooms follows the following convention:
[Blockref] [Floor] [RoomNr] optional [C] for combined living room/Kitchen.

Note: Block references AB & FG shortened to A & F

- So A125C =
  - Block AB
  - Floor 1
  - Room 25 (a combined living room with kitchen)

Block AB – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A101C	Living/Kitchen	33	Fail	95	Pass
A102	Bedroom	42	Marginal	99	Pass
A103	Bedroom	51	Pass	100	Pass
A104C	Living/Kitchen	34	Fail	76	Marginal
A106C	Living/Kitchen	39	Fail	68	Fail
A107	Bedroom	13	Fail	60	Fail
A108	Bedroom	7	Fail	44	Fail
A109C	Living/Kitchen	37	Fail	71	Marginal
A110C	Living/Kitchen	35	Fail	62	Fail
A111C	Living/Kitchen	37	Fail	76	Marginal
A112	Bedroom	23	Fail	83	Marginal
A113	Bedroom	57	Pass	99	Pass
A114C	Living/Kitchen	34	Fail	71	Marginal
A115	Bedroom	24	Fail	77	Marginal
A116	Bedroom	54	Pass	100	Pass
A117C	Living/Kitchen	62	Pass	100	Pass
A119	Bedroom	41	Marginal	98	Pass
A120	Bedroom	60	Pass	100	Pass
A121C	Living/Kitchen	40	Marginal	97	Pass
A122	Bedroom	36	Fail	93	Marginal
A123	Bedroom	40	Marginal	97	Pass
A124c	Living/Kitchen	38	Fail	97	Pass
A125	Bedroom	21	Fail	59	Fail
A126	Bedroom	12	Fail	43	Fail
A127c	Living/Kitchen	25	Fail	61	Fail
A128	Bedroom	43	Marginal	98	Pass
A130C	Living/Kitchen	27	Fail	68	Fail
A131	Bedroom	46	Fail	99	Pass
A132	Bedroom	19	Fail	77	Marginal
A133C	Living/Kitchen	35	Fail	75	Fail
A134	Bedroom	34	Fail	97	Pass
A135C	Living/Kitchen	21	Fail	71	Fail
A136	Bedroom	23	Fail	69	Fail
A137	Bedroom	20	Fail	63	Fail
A138C	Living/Kitchen	23	Fail	58	Fail
A139	Bedroom	30	Fail	87	Marginal
A140	Bedroom	7	Fail	37	Fail

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A141C	Living/Kitchen	31	Fail	56	Fail
A142	Bedroom	29	Fail	67	Fail
A143C	Living/Kitchen	32	Fail	63	Fail
A145	Bedroom	32	Fail	70	Marginal
A146C	Living/Kitchen	18	Fail	54	Fail
A147	Bedroom	33	Fail	68	Fail
A148C	Living/Kitchen	33	Fail	60	Fail
A149	Bedroom	27	Fail	86	Marginal
A150	Bedroom	16	Fail	51	Fail
A151C	Living/Kitchen	25	Fail	96	Pass
A153C	Living/Kitchen	38	Fail	100	Pass
A155C	Living/Kitchen	40	Marginal	98	Pass
A157	Bedroom	39	Fail	97	Pass
A158C	Living/Kitchen	40	Marginal	78	Marginal
A159	Bedroom	43	Marginal	82	Marginal
A160	Bedroom	52	Pass	97	Pass
A161	Bedroom	22	Fail	53	Fail
A162	Bedroom	9	Fail	59	Fail
A163C	Living/Kitchen	27	Fail	57	Fail
A164	Bedroom	16	Fail	74	Fail
A165C	Living/Kitchen	32	Fail	72	Fail
A167C	Living/Kitchen	43	Marginal	76	Marginal
A168	Bedroom	13	Fail	55	Fail
A169	Bedroom	42	Marginal	100	Pass
A170C	Living/Kitchen	39	Fail	99	Pass
A171	Bedroom	35	Fail	97	Pass
A172	Bedroom	27	Fail	98	Pass
A201C	Living/Kitchen	30	Fail	92	Marginal
A202	Bedroom	45	Fail	100	Pass
A203	Bedroom	54	Pass	100	Pass
A204C	Living/Kitchen	33	Fail	73	Fail
A205	Bedroom	9	Fail	40	Fail
A206C	Living/Kitchen	42	Marginal	73	Fail
A207	Bedroom	15	Fail	69	Fail
A208	Bedroom	9	Fail	45	Fail
A209C	Living/Kitchen	36	Fail	77	Marginal
A210C	Living/Kitchen	37	Fail	65	Fail
A211C	Living/Kitchen	40	Marginal	82	Marginal
A212	Bedroom	30	Fail	94	Marginal
A213	Bedroom	62	Pass	99	Pass
A214C	Living/Kitchen	35	Fail	73	Marginal
A215	Bedroom	26	Fail	85	Marginal
A216	Bedroom	54	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A217C	Living/Kitchen	63	Pass	100	Pass
A218	Bedroom	71	Pass	100	Pass
A219	Bedroom	49	Marginal	100	Pass
A220	Bedroom	74	Pass	100	Pass
A221C	Living/Kitchen	56	Pass	99	Pass
A222	Bedroom	55	Pass	100	Pass
A223	Bedroom	56	Pass	100	Pass
A224C	Living/Kitchen	50	Pass	100	Pass
A225	Bedroom	26	Fail	87	Marginal
A226	Bedroom	19	Fail	58	Fail
A227C	Living/Kitchen	37	Fail	83	Marginal
A228	Bedroom	59	Pass	100	Pass
A229	Bedroom	17	Fail	79	Marginal
A230C	Living/Kitchen	33	Fail	78	Marginal
A231	Bedroom	58	Pass	100	Pass
A232	Bedroom	25	Fail	99	Pass
A233C	Living/Kitchen	48	Marginal	96	Pass
A234	Bedroom	47	Marginal	100	Pass
A235C	Living/Kitchen	28	Fail	93	Marginal
A236	Bedroom	31	Fail	98	Pass
A237	Bedroom	32	Fail	99	Pass
A238C	Living/Kitchen	37	Fail	98	Pass
A239	Bedroom	44	Marginal	100	Pass
A240	Bedroom	13	Fail	56	Fail
A241C	Living/Kitchen	40	Marginal	79	Marginal
A242	Bedroom	42	Marginal	100	Pass
A243C	Living/Kitchen	39	Fail	78	Marginal
A244	Bedroom	37	Fail	80	Marginal
A245	Bedroom	48	Marginal	100	Pass
A246C	Living/Kitchen	32	Fail	81	Marginal
A247	Bedroom	47	Marginal	96	Pass
A248C	Living/Kitchen	48	Marginal	93	Marginal
A249	Bedroom	47	Marginal	99	Pass
A250	Bedroom	21	Fail	86	Marginal
A251	Bedroom	55	Pass	100	Pass
A252	Bedroom	51	Pass	100	Pass
A253	Bedroom	57	Pass	100	Pass
A254	Bedroom	56	Pass	100	Pass
A255C	Living/Kitchen	51	Pass	98	Pass
A256	Bedroom	42	Marginal	97	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A257C	Living/Kitchen	41	Marginal	80	Marginal
A258	Bedroom	47	Marginal	100	Pass
A259C	Living/Kitchen	50	Pass	93	Marginal
A260	Bedroom	56	Pass	100	Pass
A261	Bedroom	20	Fail	53	Fail
A262	Bedroom	11	Fail	64	Fail
A263C	Living/Kitchen	33	Fail	58	Fail
A264	Bedroom	21	Fail	81	Marginal
A265C	Living/Kitchen	35	Fail	69	Fail
A266	Bedroom	40	Marginal	83	Marginal
A267C	Living/Kitchen	46	Marginal	79	Marginal
A268	Bedroom	16	Fail	61	Fail
A269	Bedroom	54	Pass	100	Pass
A270C	Living/Kitchen	35	Fail	96	Pass
A271	Bedroom	42	Marginal	98	Pass
A272	Bedroom	39	Fail	99	Pass
A301C	Living/Kitchen	38	Fail	96	Pass
A302	Bedroom	49	Marginal	100	Pass
A303	Bedroom	54	Pass	100	Pass
A304C	Living/Kitchen	36	Fail	77	Marginal
A305	Bedroom	9	Fail	45	Fail
A306C	Living/Kitchen	46	Marginal	80	Marginal
A307	Bedroom	19	Fail	77	Marginal
A308	Bedroom	9	Fail	54	Fail
A309C	Living/Kitchen	41	Marginal	79	Marginal
A310C	Living/Kitchen	38	Fail	69	Fail
A311C	Living/Kitchen	53	Pass	95	Pass
A312	Bedroom	59	Pass	100	Pass
A313	Bedroom	56	Pass	100	Pass
A314C	Living/Kitchen	45	Marginal	89	Marginal
A315	Bedroom	50	Pass	96	Pass
A316	Bedroom	64	Pass	100	Pass
A317C	Living/Kitchen	68	Pass	100	Pass
A318	Bedroom	78	Pass	100	Pass
A319	Bedroom	43	Marginal	97	Pass
A320	Bedroom	59	Pass	100	Pass
A321C	Living/Kitchen	75	Pass	100	Pass
A322	Bedroom	60	Pass	100	Pass
A323	Bedroom	56	Pass	100	Pass
A324C	Living/Kitchen	54	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A325	Bedroom	27	Fail	92	Marginal
A326	Bedroom	19	Fail	64	Fail
A327C	Living/Kitchen	40	Marginal	85	Marginal
A328	Bedroom	59	Pass	100	Pass
A329	Bedroom	17	Fail	92	Marginal
A330C	Living/Kitchen	35	Fail	83	Marginal
A331	Bedroom	60	Pass	100	Pass
A332	Bedroom	34	Fail	100	Pass
A333C	Living/Kitchen	47	Marginal	96	Pass
A334	Bedroom	47	Marginal	100	Pass
A335C	Living/Kitchen	30	Fail	93	Marginal
A336	Bedroom	42	Marginal	100	Pass
A337	Bedroom	41	Marginal	99	Pass
A338C	Living/Kitchen	34	Fail	97	Pass
A339	Bedroom	55	Pass	100	Pass
A340	Bedroom	15	Fail	62	Fail
A341C	Living/Kitchen	47	Marginal	85	Marginal
A342	Bedroom	47	Marginal	100	Pass
A343C	Living/Kitchen	42	Marginal	78	Marginal
A344	Bedroom	41	Marginal	86	Marginal
A345	Bedroom	52	Pass	100	Pass
A346C	Living/Kitchen	38	Fail	84	Marginal
A347	Bedroom	49	Marginal	96	Pass
A348C	Living/Kitchen	52	Pass	93	Marginal
A349	Bedroom	41	Marginal	97	Pass
A350	Bedroom	24	Fail	86	Marginal
A355C	Living/Kitchen	59	Pass	99	Pass
A356	Bedroom	49	Marginal	100	Pass
A357C	Living/Kitchen	48	Marginal	88	Marginal
A358	Bedroom	58	Pass	100	Pass
A359C	Living/Kitchen	57	Pass	94	Marginal
A360	Bedroom	63	Pass	100	Pass
A361	Bedroom	23	Fail	56	Fail
A362	Bedroom	15	Fail	66	Fail
A363C	Living/Kitchen	36	Fail	67	Fail
A364	Bedroom	26	Fail	86	Marginal
A365C	Living/Kitchen	40	Marginal	73	Fail
A366	Bedroom	46	Marginal	86	Marginal
A367C	Living/Kitchen	50	Pass	80	Marginal
A368	Bedroom	18	Fail	62	Fail

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A369	Bedroom	58	Pass	100	Pass
A370C	Living/Kitchen	36	Fail	98	Pass
A371	Bedroom	48	Marginal	98	Pass
A372	Bedroom	39	Fail	98	Pass
A401C	Living/Kitchen	32	Fail	93	Marginal
A402	Bedroom	51	Pass	100	Pass
A403	Bedroom	58	Pass	100	Pass
A404C	Living/Kitchen	38	Fail	80	Marginal
A405	Bedroom	12	Fail	56	Fail
A406C	Living/Kitchen	47	Marginal	85	Marginal
A407	Bedroom	51	Pass	100	Pass
A408	Bedroom	36	Fail	96	Pass
A409C	Living/Kitchen	78	Pass	100	Pass
A423	Bedroom	56	Pass	100	Pass
A424C	Living/Kitchen	54	Pass	100	Pass
A425	Bedroom	27	Fail	92	Marginal
A426	Bedroom	32	Fail	92	Marginal
A427C	Living/Kitchen	47	Marginal	93	Marginal
A428	Bedroom	62	Pass	100	Pass
A429	Bedroom	18	Fail	93	Marginal
A430C	Living/Kitchen	39	Fail	82	Marginal
A431	Bedroom	54	Pass	100	Pass
A432	Bedroom	34	Fail	100	Pass
A433C	Living/Kitchen	48	Marginal	96	Pass
A434	Bedroom	47	Marginal	100	Pass
A435C	Living/Kitchen	35	Fail	96	Pass
A436	Bedroom	53	Pass	100	Pass
A437	Bedroom	50	Pass	100	Pass
A438C	Living/Kitchen	39	Fail	98	Pass
A439	Bedroom	61	Pass	100	Pass
A440	Bedroom	37	Fail	83	Marginal
A441C	Living/Kitchen	56	Pass	90	Marginal
A442	Bedroom	52	Pass	100	Pass
A443C	Living/Kitchen	44	Marginal	85	Marginal
A444	Bedroom	44	Marginal	92	Marginal
A445	Bedroom	52	Pass	100	Pass
A446C	Living/Kitchen	34	Fail	82	Marginal
A447	Bedroom	50	Pass	98	Pass
A448C	Living/Kitchen	54	Pass	94	Marginal
A449	Bedroom	93	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A462	Bedroom	91	Pass	100	Pass
A463C	Living/Kitchen	43	Marginal	71	Fail
A464	Bedroom	28	Fail	94	Marginal
A465C	Living/Kitchen	42	Marginal	76	Marginal
A466	Bedroom	48	Marginal	92	Marginal
A467C	Living/Kitchen	55	Pass	85	Marginal
A468	Bedroom	26	Fail	74	Fail
A469	Bedroom	62	Pass	100	Pass
A470C	Living/Kitchen	39	Fail	98	Pass
A471	Bedroom	53	Pass	100	Pass
A472	Bedroom	57	Pass	100	Pass
A501C	Living/Kitchen	66	Pass	98	Pass
A502	Bedroom	51	Pass	100	Pass
A503	Bedroom	61	Pass	100	Pass
A504C	Living/Kitchen	50	Pass	88	Marginal
A505	Bedroom	30	Fail	100	Pass
A529	Bedroom	40	Marginal	100	Pass
A530C	Living/Kitchen	48	Marginal	93	Marginal
A531	Bedroom	65	Pass	100	Pass
A532	Bedroom	67	Pass	100	Pass
A533C	Living/Kitchen	59	Pass	99	Pass
A534	Bedroom	54	Pass	100	Pass
A535C	Living/Kitchen	68	Pass	100	Pass
A536	Bedroom	53	Pass	100	Pass
A537	Bedroom	59	Pass	100	Pass
A538C	Living/Kitchen	54	Pass	100	Pass
A539	Bedroom	62	Pass	100	Pass
A540	Bedroom	50	Pass	100	Pass
A541C	Living/Kitchen	71	Pass	100	Pass
A542	Bedroom	67	Pass	100	Pass
A543C	Living/Kitchen	43	Marginal	87	Marginal
A544	Bedroom	51	Pass	94	Marginal
A545	Bedroom	66	Pass	100	Pass
A546C	Living/Kitchen	99	Pass	100	Pass
A564	Bedroom	34	Fail	98	Pass
A565C	Living/Kitchen	43	Marginal	82	Marginal
A566	Bedroom	49	Marginal	98	Pass
A567C	Living/Kitchen	67	Pass	100	Pass
A568	Bedroom	55	Pass	100	Pass
A569	Bedroom	71	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
A570C	Living/Kitchen	54	Pass	100	Pass
A571	Bedroom	62	Pass	100	Pass
A572	Bedroom	66	Pass	100	Pass
		Count	**283**	**Count**	**283**
		Pass	**97**	**Pass**	**150**
		Pass rate	**34%**	**Pass rate**	**53%**
		Marginal	63	Marginal	80
		Pass Margina	57%	Pass Margina	81%

Block C – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
C101	Bedroom	39	Fail	93	marginal
C102C	Living/Kitchen	37	Fail	84	marginal
C103	Bedroom	28	Fail	100	Pass
C104	Bedroom	41	marginal	100	Pass
C105C	Living/Kitchen	41	marginal	89	marginal
C106	Bedroom	36	Fail	100	Pass
C107	Bedroom	4	Fail	22	Fail
C108C	Living/Kitchen	36	Fail	98	Pass
C109	Bedroom	41	Fail	99	Pass
C110	Bedroom	34	Fail	83	marginal
C111C	Living/Kitchen	25	Fail	71	Fail
C112	Bedroom	41	marginal	100	Pass
C201C	Living/Kitchen	33	Fail	98	Pass
C202	Bedroom	42	marginal	96	Pass
C203	Bedroom	45	marginal	89	marginal
C204C	Living/Kitchen	42	marginal	85	marginal
C205	Bedroom	22	Fail	95	Pass
C206	Bedroom	46	marginal	96	Pass
C207C	Living/Kitchen	39	Fail	87	marginal
C208	Bedroom	26	Fail	94	marginal
C209	Bedroom	51	Pass	100	Pass
C210C	Living/Kitchen	44	marginal	89	marginal
C211	Bedroom	35	Fail	100	Pass
C212	Bedroom	12	Fail	31	Fail
C213C	Living/Kitchen	37	Fail	98	Pass
C214	Bedroom	45	marginal	99	Pass
C215	Bedroom	45	marginal	92	marginal
C216C	Living/Kitchen	25	Fail	75	Fail
C217	Bedroom	43	marginal	100	Pass
C218	Bedroom	22	Fail	96	Pass
C219C	Living/Kitchen	38	Fail	83	marginal
C220	Bedroom	55	Pass	100	Pass
C221C	Living/Kitchen	21	Fail	67	Fail
C222	Bedroom	38	Fail	97	Pass
C223	Bedroom	38	Fail	99	Pass
C301C	Living/Kitchen	59	Pass	100	Pass
C302	Bedroom	52	Pass	99	Pass
C303	Bedroom	52	Pass	95	Pass
C304C	Living/Kitchen	45	marginal	84	marginal
C305	Bedroom	27	Fail	94	marginal

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
C306	Bedroom	49	marginal	96	Pass
C307C	Living/Kitchen	44	marginal	84	marginal
C308	Bedroom	28	Fail	91	marginal
C309	Bedroom	51	Pass	100	Pass
C310C	Living/Kitchen	44	marginal	84	marginal
C311	Bedroom	52	Pass	100	Pass
C312	Bedroom	12	Fail	35	Fail
C313C	Living/Kitchen	40	marginal	99	Pass
C314	Bedroom	45	marginal	99	Pass
C315	Bedroom	45	marginal	94	marginal
C316C	Living/Kitchen	25	Fail	74	marginal
C317	Bedroom	47	marginal	100	Pass
C318	Bedroom	22	Fail	96	Pass
C319C	Living/Kitchen	40	marginal	84	marginal
C320	Bedroom	55	Pass	100	Pass
C321C	Living/Kitchen	59	Pass	100	Pass
C322	Bedroom	83	Pass	100	Pass
C323	Bedroom	46	marginal	100	Pass
C324	Bedroom	49	marginal	100	Pass
C401C	Living/Kitchen	60	Pass	100	Pass
C402	Bedroom	52	Pass	98	Pass
C403	Bedroom	62	Pass	99	Pass
C404C	Living/Kitchen	54	Pass	96	Pass
C405	Bedroom	34	Fail	100	Pass
C406	Bedroom	54	Pass	98	Pass
C407C	Living/Kitchen	47	marginal	88	marginal
C408	Bedroom	33	Fail	99	Pass
C409	Bedroom	56	Pass	100	Pass
C410C	Living/Kitchen	50	Pass	93	marginal
C411	Bedroom	64	Pass	100	Pass
C412	Bedroom	12	Fail	43	Fail
C413C	Living/Kitchen	43	marginal	99	Pass
C414	Bedroom	52	Pass	100	Pass
C415	Bedroom	52	Pass	97	Pass
C416C	Living/Kitchen	34	Fail	80	marginal
C417	Bedroom	52	Pass	100	Pass
C418	Bedroom	22	Fail	96	Pass
C419C	Living/Kitchen	38	Fail	82	marginal
C420	Bedroom	55	Pass	100	Pass
C421	Bedroom	59	Pass	100	Pass

Block D – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
C422C	Living/Kitchen	85	Pass	100	Pass
C423	Bedroom	47	marginal	98	Pass
C424	Bedroom	47	marginal	100	Pass
C501C	Living/Kitchen	59	Pass	100	Pass
C502	Bedroom	52	Pass	99	Pass
C503	Bedroom	59	Pass	97	Pass
C504C	Living/Kitchen	50	Pass	91	marginal
C505	Bedroom	34	Fail	100	Pass
C506	Bedroom	56	Pass	98	Pass
C507C	Living/Kitchen	49	marginal	92	marginal
C508	Bedroom	34	Fail	100	Pass
C509	Bedroom	61	Pass	100	Pass
C510C	Living/Kitchen	54	Pass	96	Pass
C511	Bedroom	92	Pass	100	Pass
C512	Bedroom	14	Fail	56	Fail
C513C	Living/Kitchen	65	Pass	100	Pass
C514	Bedroom	54	Pass	100	Pass
C515	Bedroom	50	Pass	96	Pass
C516C	Living/Kitchen	45	marginal	93	marginal
C517	Bedroom	55	Pass	100	Pass
C518	Bedroom	26	Fail	97	Pass
C519C	Living/Kitchen	41	marginal	85	marginal
C520	Bedroom	55	Pass	100	Pass
C521	Bedroom	64	Pass	100	Pass
C522C	Living/Kitchen	85	Pass	100	Pass
C523	Bedroom	48	marginal	98	Pass
C524	Bedroom	50	Pass	100	Pass
C601C	Living/Kitchen	47	marginal	100	Pass
C602	Bedroom	52	Pass	99	Pass
C603	Bedroom	59	Pass	99	Pass
C604C	Living/Kitchen	54	Pass	96	Pass
C605	Bedroom	55	Pass	100	Pass
C606	Bedroom	58	Pass	99	Pass
C607C	Living/Kitchen	55	Pass	96	Pass
C608	Bedroom	100	Pass	100	Pass
C616C	Living/Kitchen	99	Pass	100	Pass
C617	Bedroom	52	Pass	100	Pass
C618	Bedroom	23	Fail	99	Pass
C619C	Living/Kitchen	38	Fail	84	marginal
C620	Bedroom	53	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
C621	Bedroom	59	Pass	100	Pass
C622C	Living/Kitchen	85	Pass	100	Pass
C623	Bedroom	45	marginal	100	Pass
C624	Bedroom	47	marginal	100	Pass
C701C	Living/Kitchen	75	Pass	100	Pass
C702	Bedroom	52	Pass	99	Pass
C703	Bedroom	58	Pass	99	Pass
C704	Bedroom	63	Pass	100	Pass
C705C	Living/Kitchen	100	Pass	100	Pass
C718	Bedroom	44	marginal	100	Pass
C719C	Living/Kitchen	50	Pass	94	marginal
C720	Bedroom	58	Pass	100	Pass
C721	Bedroom	67	Pass	100	Pass
C722C	Living/Kitchen	89	Pass	100	Pass
C723	Bedroom	43	marginal	100	Pass
C724	Bedroom	53	Pass	100	Pass
		Count	136	Count	136
		Pass	62	Pass	99
		Pass rate	46%	Pass rate	73%
		Marginal	35	Marginal	29
		Pass Margina	71%	Pass Margina	94%

Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
D101C	Living/Kitchen	77	Pass	100	Pass
D102	Bedroom	40	Marginal	97	Pass
D103	Bedroom	53	Pass	100	Pass
D104C	Living/Kitchen	28	Fail	69	Fail
D105	Bedroom	33	Fail	93	Marginal
D106	Bedroom	47	Marginal	83	Marginal
D107C	Living/Kitchen	37	Fail	76	Marginal
D108	Bedroom	26	Fail	86	Marginal
D109C	Living/Kitchen	48	marginal	92	Marginal
D110	Bedroom	51	Pass	100	Pass
D111	Bedroom	48	Marginal	96	Pass
D112C	Living/Kitchen	27	Fail	78	Marginal
D113	Bedroom	25	Fail	97	Pass
D114	Bedroom	37	Fail	99	Pass
D115C	Living/Kitchen	49	Marginal	99	Pass
D116	Bedroom	32	Fail	96	Pass
D117C	Living/Kitchen	33	Fail	60	Fail
D118	Bedroom	4	Fail	42	Fail
D119	Bedroom	26	Fail	81	Marginal
D120C	Living/Kitchen	35	Fail	86	Marginal
D122	Bedroom	11	Fail	59	Fail
D123C	Living/Kitchen	28	Fail	69	Fail
D124	Bedroom	39	Fail	99	Pass
D125	Bedroom	40	Marginal	98	Pass
D126C	Living/Kitchen	64	Pass	100	Pass
D127	Bedroom	40	Marginal	99	Pass
D128	Bedroom	58	Pass	100	Pass
D201C	Living/Kitchen	76	Pass	100	Pass
D202	Bedroom	41	Marginal	98	Pass
D203	Bedroom	55	Pass	100	Pass
D204C	Living/Kitchen	34	Fail	76	Marginal
D205	Bedroom	39	Fail	97	Pass
D206	Bedroom	47	Marginal	87	Marginal
D207C	Living/Kitchen	43	Marginal	79	Marginal
D208	Bedroom	30	Fail	99	Pass
D209C	Living/Kitchen	49	Marginal	91	Marginal
D210	Bedroom	53	Pass	100	Pass
D211	Bedroom	49	Marginal	97	Pass
D212C	Living/Kitchen	24	Fail	80	Marginal
D213	Bedroom	27	Fail	99	Pass
D214	Bedroom	42	Fail	99	Pass

Minimum daylight provision

For all habitable room

Location Dublin 14,900 lx

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
D215C	Living/Kitchen	53	Pass	100	Pass
D216	Bedroom	50	Pass	100	Pass
D217C	Living/Kitchen	41	Marginal	71	Fail
D218	Bedroom	12	Fail	69	Fail
D219	Bedroom	43	Marginal	100	Pass
D220C	Living/Kitchen	46	Marginal	88	Marginal
D221	Bedroom	45	Marginal	89	Marginal
D222	Bedroom	19	Fail	68	Fail
D223C	Living/Kitchen	37	Fail	78	Marginal
D224	Bedroom	43	Marginal	100	Pass
D225	Bedroom	42	Marginal	99	Pass
D226C	Living/Kitchen	63	Pass	100	Pass
D227	Bedroom	42	Marginal	100	Pass
D228	Bedroom	57	Pass	100	Pass
D301C	Living/Kitchen	77	Pass	100	Pass
D302	Bedroom	42	Marginal	99	Pass
D303	Bedroom	57	Pass	100	Pass
D304C	Living/Kitchen	37	Fail	81	Marginal
D305	Bedroom	39	Fail	97	Pass
D306	Bedroom	49	Marginal	92	Marginal
D307C	Living/Kitchen	43	Marginal	83	Marginal
D308	Bedroom	33	Fail	100	Pass
D309C	Living/Kitchen	51	Pass	96	Pass
D310	Bedroom	54	Pass	100	Pass
D311	Bedroom	53	Pass	98	Pass
D312C	Living/Kitchen	21	Fail	82	Marginal
D313	Bedroom	41	Marginal	100	Pass
D314	Bedroom	50	Pass	100	Pass
D315C	Living/Kitchen	56	Pass	100	Pass
D316	Bedroom	60	Pass	100	Pass
D317C	Living/Kitchen	43	Marginal	71	Fail
D318	Bedroom	19	Fail	71	Fail
D319	Bedroom	51	Pass	100	Pass
D320C	Living/Kitchen	52	Pass	92	Marginal
D321	Bedroom	45	Marginal	89	Marginal
D322	Bedroom	26	Fail	77	Marginal
D323C	Living/Kitchen	43	Marginal	83	Marginal
D324	Bedroom	49	Marginal	100	Pass
D325	Bedroom	50	Pass	100	Pass
D326C	Living/Kitchen	65	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location	Dublin	14,900	lx		
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
D327	Bedroom	42	Marginal	100	Pass
D328	Bedroom	58	Pass	99	Pass
D401C	Living/Kitchen	77	Pass	100	Pass
D402	Bedroom	46	Marginal	99	Pass
D403	Bedroom	57	Pass	100	Pass
D404C	Living/Kitchen	34	Fail	77	Marginal
D405	Bedroom	38	Fail	99	Pass
D406	Bedroom	50	Pass	94	Marginal
D407C	Living/Kitchen	45	Marginal	89	Marginal
D408	Bedroom	33	Fail	100	Pass
D409C	Living/Kitchen	54	Pass	95	Pass
D410	Bedroom	56	Pass	100	Pass
D411	Bedroom	53	Pass	100	Pass
D412C	Living/Kitchen	26	Fail	93	Marginal
D413	Bedroom	49	Marginal	100	Pass
D414	Bedroom	50	Pass	100	Pass
D415C	Living/Kitchen	59	Pass	100	Pass
D416	Bedroom	60	Pass	100	Pass
D417C	Living/Kitchen	44	Marginal	71	Fail
D418	Bedroom	21	Fail	74	Fail
D419	Bedroom	56	Pass	100	Pass
D420C	Living/Kitchen	54	Pass	88	Marginal
D421	Bedroom	50	Pass	89	Marginal
D422	Bedroom	30	Fail	78	Marginal
D423C	Living/Kitchen	45	Marginal	84	Marginal
D424	Bedroom	52	Pass	100	Pass
D425	Bedroom	55	Pass	100	Pass
D426C	Living/Kitchen	64	Pass	100	Pass
D427	Bedroom	40	Marginal	99	Pass
D428	Bedroom	58	Pass	99	Pass
D501C	Living/Kitchen	79	Pass	100	Pass
D502	Bedroom	47	Marginal	99	Pass
D503	Bedroom	57	Pass	100	Pass
D504C	Living/Kitchen	23	Fail	68	Fail
D505	Bedroom	38	Fail	100	Pass
D506	Bedroom	51	Pass	96	Pass
D507C	Living/Kitchen	54	Pass	97	Pass
D508	Bedroom	61	Pass	100	Pass
D509C	Living/Kitchen	58	Pass	96	Pass
D510	Bedroom	63	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location	Dublin	14,900	lx		
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
D511	Bedroom	57	Pass	100	Pass
D512C	Living/Kitchen	48	Marginal	99	Pass
D513	Bedroom	58	Pass	100	Pass
D514	Bedroom	58	Pass	100	Pass
D515C	Living/Kitchen	72	Pass	100	Pass
D516	Bedroom	65	Pass	100	Pass
D517C	Living/Kitchen	45	Marginal	73	Fail
D518	Bedroom	47	Marginal	100	Pass
D519	Bedroom	64	Pass	100	Pass
D520C	Living/Kitchen	53	Pass	89	Marginal
D521	Bedroom	48	Marginal	91	Marginal
D522	Bedroom	32	Fail	85	Marginal
D523C	Living/Kitchen	46	Marginal	85	Marginal
D524	Bedroom	59	Pass	100	Pass
D525	Bedroom	56	Pass	100	Pass
D526C	Living/Kitchen	76	Pass	98	Pass
D527	Bedroom	56	Pass	90	Marginal
D528	Bedroom	58	Pass	100	Pass
D601C	Living/Kitchen	88	Pass	100	Pass
D602	Bedroom	49	Marginal	100	Pass
D603	Bedroom	66	Pass	100	Pass
D604C	Living/Kitchen	61	Pass	99	Pass
D605	Bedroom	65	Pass	100	Pass
D622	Bedroom	52	Pass	96	Pass
D623C	Living/Kitchen	54	Pass	94	Marginal
D624	Bedroom	62	Pass	100	Pass
D625	Bedroom	56	Pass	100	Pass
D626C	Living/Kitchen	78	Pass	100	Pass
D627	Bedroom	58	Pass	100	Pass
D628	Bedroom	58	Pass	100	Pass
		Count	151	Count	151
		Pass	71	Pass	99
		Pass rate	47%	Pass rate	66%
		Marginal	41	Marginal	38
		Pass Margina	74%	Pass Margina	91%

Block E – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location	Dublin	14,900	lx		
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
E001C	Living/Kitchen	51	Pass	100	Pass
E002X					
E003	Bedroom	22	Fail	98	Pass
E004	Bedroom	28	Fail	78	marginal
E006C	Living/Kitchen	39	Fail	99	Pass
E007C	Living/Kitchen	40	marginal	90	marginal
E008	Bedroom	49	marginal	100	Pass
E009	Bedroom	46	marginal	100	Pass
E010C	Living/Kitchen	40	marginal	93	marginal
E101C	Living/Kitchen	41	marginal	99	Pass
E102	Bedroom	48	marginal	98	Pass
E103	Bedroom	55	Pass	97	Pass
E104	Bedroom	57	Pass	100	Pass
E105	Bedroom	68	Pass	100	Pass
E106C	Living/Kitchen	36	Fail	97	Pass
E107C	Living/Kitchen	40	marginal	89	marginal
E108	Bedroom	50	Pass	100	Pass
E109	Bedroom	52	Pass	100	Pass
E110C	Living/Kitchen	40	marginal	92	marginal
E201C	Living/Kitchen	45	marginal	99	Pass
E202	Bedroom	54	Pass	100	Pass
E203	Bedroom	60	Pass	99	Pass
E204	Bedroom	57	Pass	100	Pass
E205	Bedroom	75	Pass	100	Pass
E206C	Living/Kitchen	42	marginal	99	Pass
E207C	Living/Kitchen	44	marginal	96	Pass
E208	Bedroom	53	Pass	100	Pass
E209	Bedroom	54	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location	Dublin	14,900	lx		
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
E210C	Living/Kitchen	41	marginal	92	marginal
E301C	Living/Kitchen	56	Pass	100	Pass
E302	Bedroom	53	Pass	99	Pass
E303	Bedroom	63	Pass	99	Pass
E304	Bedroom	66	Pass	100	Pass
E305	Bedroom	80	Pass	100	Pass
E306C	Living/Kitchen	55	Pass	100	Pass
E307C	Living/Kitchen	58	Pass	99	Pass
E308	Bedroom	55	Pass	100	Pass
E309	Bedroom	55	Pass	100	Pass
E310C	Living/Kitchen	58	Pass	99	Pass
		Count	38	Count	38
		Pass	22	Pass	32
		Pass rate	58%	Pass rate	84%
		Marginal	12	Marginal	6
		Pass Margina	89%	Pass Margina	100%

Block FG – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F101C	Living/Kitchen	35	Fail	94	marginal
F102	Bedroom	48	marginal	100	Pass
F103C	Living/Kitchen	48	marginal	96	Pass
F104	Bedroom	16	Fail	88	marginal
F105C	Living/Kitchen	32	Fail	83	marginal
F106	Bedroom	9	Fail	56	Fail
F108	Bedroom	25	Fail	91	marginal
F109C	Living/Kitchen	35	Fail	82	marginal
F110	Bedroom	38	Fail	100	Pass
F111	Bedroom	39	Fail	100	Pass
F112	Bedroom	44	marginal	100	Pass
F113C	Living/Kitchen	64	Pass	100	Pass
F114	Bedroom	66	Pass	100	Pass
F115	Bedroom	57	Pass	100	Pass
F116C	Living/Kitchen	53	Pass	99	Pass
F117	Bedroom	86	Pass	100	Pass
F154C	Living/Kitchen	21	Fail	89	marginal
F150C	Living/Kitchen	34	Fail	100	Pass
F119C	Living/Kitchen	50	Pass	98	Pass
F120	Bedroom	56	Pass	100	Pass
F121	Bedroom	61	Pass	100	Pass
F123C	Living/Kitchen	88	Pass	95	Pass
F124C	Living/Kitchen	39	Fail	78	marginal
F125	Bedroom	11	Fail	40	Fail
F126C	Living/Kitchen	36	Fail	62	Fail
F127	Bedroom	5	Fail	36	Fail
F129	Bedroom	11	Fail	52	Fail
F130C	Living/Kitchen	25	Fail	57	Fail
F131	Bedroom	36	Fail	85	marginal
F132	Bedroom	11	Fail	51	Fail
F133C	Living/Kitchen	35	Fail	62	Fail
F134	Bedroom	32	Fail	94	marginal
F135C	Living/Kitchen	24	Fail	68	Fail
F136	Bedroom	46	marginal	100	Pass
F137	Bedroom	39	Fail	100	Pass
F138C	Living/Kitchen	37	Fail	98	Pass
F139	Bedroom	70	Pass	100	Pass
F140C	Living/Kitchen	40	marginal	79	marginal
F141	Bedroom	26	Fail	99	Pass
F142	Bedroom	58	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F143C	Living/Kitchen	31	Fail	69	Fail
F144	Bedroom	14	Fail	60	Fail
F146C	Living/Kitchen	31	Fail	67	Fail
F147	Bedroom	14	Fail	65	Fail
F148C	Living/Kitchen	35	Fail	68	Fail
F149	Bedroom	26	Fail	68	Fail
F155	Bedroom	25	Fail	78	Marginal
F156C	Living/Kitchen	37	Fail	80	marginal
F157	Bedroom	44	marginal	100	Pass
F158C	Living/Kitchen	42	marginal	88	marginal
F160	Bedroom	15	Fail	66	Fail
F161C	Living/Kitchen	23	Fail	63	Fail
F162	Bedroom	35	Fail	99	Pass
F163C	Living/Kitchen	39	Fail	72	Fail
F164	Bedroom	7	Fail	33	Fail
F165	Bedroom	43	marginal	100	Pass
F166C	Living/Kitchen	35	Fail	95	Pass
F167	Bedroom	38	Fail	97	Pass
F168	Bedroom	45	marginal	100	Pass
F201C	Living/Kitchen	45	marginal	99	Pass
F202	Bedroom	48	marginal	100	Pass
F203C	Living/Kitchen	48	marginal	96	Pass
F204	Bedroom	16	Fail	86	marginal
F205	Bedroom	60	Pass	100	Pass
F206C	Living/Kitchen	41	marginal	81	marginal
F207	Bedroom	23	Fail	89	marginal
F208	Bedroom	25	Fail	88	marginal
F209C	Living/Kitchen	37	Fail	79	marginal
F210	Bedroom	34	Fail	100	Pass
F211	Bedroom	59	Pass	100	Pass
F212	Bedroom	59	Pass	100	Pass
F213C	Living/Kitchen	67	Pass	100	Pass
F214	Bedroom	69	Pass	100	Pass
F215	Bedroom	59	Pass	100	Pass
F216C	Living/Kitchen	55	Pass	99	Pass
F217	Bedroom	25	Fail	91	marginal
F218	Bedroom	79	Pass	100	Pass
F219C	Living/Kitchen	54	Pass	99	Pass
F220	Bedroom	61	Pass	100	Pass
F221	Bedroom	77	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F222	Bedroom	70	Pass	100	Pass
F223C	Living/Kitchen	34	Fail	98	Pass
F224	Bedroom	44	marginal	99	Pass
F225C	Living/Kitchen	30	Fail	74	Fail
F226	Bedroom	52	Pass	100	Pass
F227	Bedroom	34	Fail	99	Pass
F228C	Living/Kitchen	39	Fail	76	Marginal
F229	Bedroom	16	Fail	63	Fail
F230C	Living/Kitchen	30	Fail	68	Fail
F231	Bedroom	49	marginal	100	Pass
F232	Bedroom	11	Fail	67	Fail
F233C	Living/Kitchen	41	marginal	65	Fail
F234	Bedroom	36	Fail	97	Pass
F235C	Living/Kitchen	39	Fail	89	marginal
F236	Bedroom	50	Pass	100	Pass
F237	Bedroom	42	marginal	100	Pass
F238C	Living/Kitchen	40	marginal	98	Pass
F239	Bedroom	67	Pass	100	Pass
F240C	Living/Kitchen	46	marginal	85	marginal
F241	Bedroom	30	Fail	100	Pass
F242	Bedroom	62	Pass	100	Pass
F243C	Living/Kitchen	35	Fail	77	marginal
F244	Bedroom	21	Fail	73	Fail
F245	Bedroom	49	marginal	93	marginal
F246C	Living/Kitchen	39	Fail	75	Fail
F247	Bedroom	23	Fail	97	Pass
F248C	Living/Kitchen	45	marginal	85	marginal
F249	Bedroom	35	Fail	97	Pass
F250	Bedroom	16	Fail	68	Fail
F251	Bedroom	32	Fail	98	Pass
F252	Bedroom	21	Fail	96	Pass
F253C	Living/Kitchen	33	Fail	100	Pass
F254C	Living/Kitchen	44	marginal	100	Pass
F255	Bedroom	49	marginal	100	Pass
F256C	Living/Kitchen	49	marginal	91	marginal
F257	Bedroom	50	Pass	100	Pass
F258C	Living/Kitchen	43	marginal	81	marginal
F259	Bedroom	44	marginal	89	marginal
F260	Bedroom	22	Fail	77	marginal
F261C	Living/Kitchen	28	Fail	70	Fail

Minimum daylight provision

For all habitable room

Location *Dublin* *14,900* *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F262	Bedroom	42	Fail	100	Pass
F263C	Living/Kitchen	47	marginal	80	marginal
F264	Bedroom	15	Fail	61	Fail
F265	Bedroom	47	marginal	100	Pass
F266C	Living/Kitchen	38	Fail	96	Pass
F267	Bedroom	41	marginal	98	Pass
F268	Bedroom	50	Pass	100	Pass
F301C	Living/Kitchen	41	marginal	98	Pass
F302	Bedroom	48	marginal	100	Pass
F303C	Living/Kitchen	48	marginal	95	Pass
F304	Bedroom	16	Fail	90	marginal
F305	Bedroom	64	Pass	100	Pass
F306C	Living/Kitchen	39	Fail	82	marginal
F307	Bedroom	23	Fail	89	marginal
F308	Bedroom	27	Fail	95	Pass
F309C	Living/Kitchen	38	Fail	81	marginal
F310	Bedroom	34	Fail	100	Pass
F312	Bedroom	59	Pass	100	Pass
F313C	Living/Kitchen	59	Pass	99	Pass
F314	Bedroom	72	Pass	100	Pass
F315	Bedroom	63	Pass	100	Pass
F316C	Living/Kitchen	49	marginal	99	Pass
F319C	Living/Kitchen	57	Pass	99	Pass
F320	Bedroom	61	Pass	100	Pass
F321	Bedroom	67	Pass	100	Pass
F322	Bedroom	70	Pass	100	Pass
F323C	Living/Kitchen	40	marginal	100	Pass
F324	Bedroom	51	Pass	99	Pass
F325C	Living/Kitchen	53	Pass	96	Pass
F326	Bedroom	63	Pass	100	Pass
F327C	Living/Kitchen	25	Fail	71	marginal
F328	Bedroom	52	Pass	100	Pass
F329	Bedroom	16	Fail	63	Fail
F330C	Living/Kitchen	36	Fail	75	Fail
F331	Bedroom	52	Pass	100	Pass
F332	Bedroom	18	Fail	77	marginal
F333C	Living/Kitchen	41	marginal	70	Fail
F334	Bedroom	38	Fail	98	Pass
F335C	Living/Kitchen	39	Fail	91	marginal
F336	Bedroom	50	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F337	Bedroom	50	Pass	100	Pass
F338C	Living/Kitchen	42	marginal	98	Pass
F339	Bedroom	79	Pass	100	Pass
F340C	Living/Kitchen	48	marginal	90	marginal
F341	Bedroom	35	Fail	100	Pass
F342	Bedroom	67	Pass	100	Pass
F343C	Living/Kitchen	40	marginal	79	marginal
F344	Bedroom	31	Fail	82	marginal
F345	Bedroom	53	Pass	95	Pass
F346C	Living/Kitchen	47	marginal	88	marginal
F347	Bedroom	66	Pass	100	Pass
F348C	Living/Kitchen	56	Pass	96	Pass
F349	Bedroom	52	Pass	100	Pass
F355	Bedroom	65	Pass	100	Pass
F356C	Living/Kitchen	49	marginal	95	Pass
F357	Bedroom	50	Pass	100	Pass
F358C	Living/Kitchen	44	marginal	84	marginal
F359	Bedroom	51	Pass	95	Pass
F360	Bedroom	27	Fail	81	marginal
F361C	Living/Kitchen	35	Fail	75	marginal
F362	Bedroom	35	Fail	100	Pass
F363C	Living/Kitchen	49	marginal	80	marginal
F364	Bedroom	18	Fail	62	Fail
F365	Bedroom	60	Pass	100	Pass
F366C	Living/Kitchen	40	marginal	96	Pass
F367	Bedroom	53	Pass	100	Pass
F368	Bedroom	55	Pass	100	Pass
F401C	Living/Kitchen	47	marginal	99	Pass
F402	Bedroom	49	marginal	100	Pass
F403C	Living/Kitchen	56	Pass	98	Pass
F404	Bedroom	18	Fail	95	Pass
F405	Bedroom	64	Pass	100	Pass
F406C	Living/Kitchen	44	marginal	86	marginal
F407	Bedroom	29	Fail	99	Pass
F408	Bedroom	27	Fail	95	Pass
F409C	Living/Kitchen	49	marginal	90	marginal
F410	Bedroom	99	Pass	100	Pass
F426	Bedroom	100	Pass	100	Pass
F427C	Living/Kitchen	40	marginal	84	marginal
F428	Bedroom	49	marginal	97	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F429	Bedroom	19	Fail	86	marginal
F430C	Living/Kitchen	33	Fail	75	marginal
F431	Bedroom	52	Pass	100	Pass
F432	Bedroom	20	Fail	88	marginal
F433C	Living/Kitchen	44	marginal	71	marginal
F434	Bedroom	40	marginal	98	Pass
F435C	Living/Kitchen	39	Fail	89	marginal
F436	Bedroom	64	Pass	100	Pass
F437	Bedroom	54	Pass	100	Pass
F438C	Living/Kitchen	45	marginal	99	Pass
F439	Bedroom	82	Pass	100	Pass
F440C	Living/Kitchen	48	marginal	95	Pass
F441	Bedroom	39	Fail	100	Pass
F442	Bedroom	67	Pass	100	Pass
F443C	Living/Kitchen	50	Pass	88	marginal
F444	Bedroom	49	marginal	96	Pass
F445	Bedroom	68	Pass	100	Pass
F446C	Living/Kitchen	55	Pass	96	Pass
F447	Bedroom	56	Pass	100	Pass
F448C	Living/Kitchen	98	Pass	100	Pass
F456C	Living/Kitchen	95	Pass	100	Pass
F457	Bedroom	52	Pass	100	Pass
F458C	Living/Kitchen	52	Pass	95	Pass
F459	Bedroom	63	Pass	100	Pass
F460	Bedroom	52	Pass	100	Pass
F461C	Living/Kitchen	48	marginal	85	marginal
F462	Bedroom	58	Pass	100	Pass
F463C	Living/Kitchen	54	Pass	89	marginal
F464	Bedroom	41	marginal	87	marginal
F465	Bedroom	72	Pass	100	Pass
F466C	Living/Kitchen	50	Pass	98	Pass
F467	Bedroom	55	Pass	100	Pass
F468	Bedroom	60	Pass	100	Pass
F529	Bedroom	40	marginal	93	marginal
F530C	Living/Kitchen	42	marginal	84	marginal
F531	Bedroom	56	Pass	97	Pass
F532	Bedroom	47	marginal	90	marginal
F533C	Living/Kitchen	45	marginal	73	marginal
F534	Bedroom	42	marginal	97	Pass

Minimum daylight provision

For all habitable rooms

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
F535C	Living/Kitchen	38	Fail	92	marginal
F536	Bedroom	71	Pass	97	Pass
F537	Bedroom	63	Pass	97	Pass
F538C	Living/Kitchen	50	Pass	98	Pass
F539	Bedroom	73	Pass	100	Pass
F540C	Living/Kitchen	56	Pass	97	Pass
F541	Bedroom	65	Pass	100	Pass
F542	Bedroom	70	Pass	100	Pass
F543C	Living/Kitchen	63	Pass	99	Pass
F544	Bedroom	86	Pass	100	Pass
F545C	Living/Kitchen	94	Pass	100	Pass
		Count	**250**	**Count**	**250**
		Pass	**93**	**Pass**	**155**
		Pass rate	**37%**	**Pass rate**	**62%**
		Marginal	61	Marginal	62
		Pass Margina	62%	Pass Margina	87%

Block H – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
H001C	Living/Kitchen	21	Fail	47	Fail
H002	Bedroom	38	Fail	81	Marginal
H003	Bedroom	22	Fail	64	Fail
H004C	Living/Kitchen	17	Fail	53	Fail
H005	Bedroom	27	Fail	80	Marginal
H006C	Living/Kitchen	60	Pass	99	Pass
H007	Bedroom	57	Pass	100	Pass
H008	Bedroom	70	Pass	100	Pass
H009C	Living/Kitchen	37	Fail	78	Marginal
H010	Bedroom	39	Fail	100	Pass
H011	Bedroom	43	Marginal	100	Pass
H012	Bedroom	47	Marginal	100	Pass
H013	Bedroom	56	Pass	100	Pass
H101	Bedroom	16	Fail	79	Fail
H103	Bedroom	21	Fail	61	Fail
H104C	Living/Kitchen	42	Marginal	84	Fail
H105	Bedroom	43	Marginal	100	Pass
H106C	Living/Kitchen	27	Fail	68	Fail
H107	Bedroom	19	Fail	67	Fail
H109C	Living/Kitchen	59	Pass	100	Pass
H110	Bedroom	46	Fail	100	Pass
H111C	Living/Kitchen	83	Pass	95	Pass
H112	Bedroom	26	Fail	84	Marginal
H113	Bedroom	18	Fail	68	Fail
H114C	Living/Kitchen	36	Fail	92	Marginal
H115	Bedroom	44	Marginal	95	Pass
H116	Bedroom	23	Fail	84	Marginal
H117C	Living/Kitchen	39	Fail	76	Marginal
H118	Bedroom	19	Fail	61	Fail
H119C	Living/Kitchen	32	Fail	71	Fail
H120	Bedroom	44	Marginal	100	Pass
H121	Bedroom	15	Fail	60	Fail
H122C	Living/Kitchen	37	Fail	65	Fail
H123	Bedroom	39	Fail	97	Pass
H124C	Living/Kitchen	56	Pass	99	Pass
H125	Bedroom	56	Pass	100	Pass
H126	Bedroom	70	Pass	100	Pass
H127C	Living/Kitchen	24	Fail	68	Fail
H128C	Living/Kitchen	79	Pass	100	Pass
H129C	Living/Kitchen	77	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
H130C	Living/Kitchen	90	Pass	100	Pass
H131	Bedroom	65	Pass	100	Pass
H132	Bedroom	60	Pass	100	Pass
H133	Bedroom	53	Pass	100	Pass
H201C	Living/Kitchen	50	Pass	100	Pass
H202	Bedroom	42	Marginal	96	Pass
H203C	Living/Kitchen	50	Pass	94	Marginal
H204	Bedroom	52	Pass	100	Pass
H205	Bedroom	54	Pass	100	Pass
H206C	Living/Kitchen	37	Fail	78	marginal
H207	Bedroom	23	Fail	74	Fail
H208C	Living/Kitchen	60	Pass	98	Pass
H209	Bedroom	38	Fail	97	Pass
H210	Bedroom	52	Pass	100	Pass
H211C	Living/Kitchen	48	Marginal	93	Marginal
H212	Bedroom	34	Fail	94	Marginal
H213	Bedroom	20	Fail	76	Fail
H214C	Living/Kitchen	37	Fail	94	Marginal
H215	Bedroom	45	Marginal	96	Pass
H216	Bedroom	27	Fail	90	Marginal
H217C	Living/Kitchen	39	Fail	79	Marginal
H218	Bedroom	21	Fail	69	Fail
H219C	Living/Kitchen	35	Fail	71	Fail
H220	Bedroom	53	Pass	100	Pass
H221	Bedroom	17	Fail	71	Fail
H222C	Living/Kitchen	40	Marginal	65	Fail
H223	Bedroom	41	Fail	99	Pass
H224C	Living/Kitchen	47	Marginal	98	Pass
H225	Bedroom	47	Marginal	100	Pass
H226	Bedroom	73	Pass	100	Pass
H301C	Living/Kitchen	73	Pass	100	Pass
H302	Bedroom	89	Pass	100	Pass
H303C	Living/Kitchen	58	Pass	97	Pass
H304	Bedroom	58	Pass	100	Pass
H305	Bedroom	56	Pass	100	Pass
H306C	Living/Kitchen	40	Marginal	78	Marginal
H307	Bedroom	27	Fail	78	Marginal
H308C	Living/Kitchen	65	Pass	100	Pass
H309	Bedroom	38	Fail	99	Pass
H310	Bedroom	56	Pass	100	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
H311C	Living/Kitchen	49	Marginal	94	Marginal
H312	Bedroom	36	Fail	94	Marginal
H313	Bedroom	20	Fail	82	Marginal
H314C	Living/Kitchen	41	Marginal	94	Marginal
H315	Bedroom	46	Marginal	97	Pass
H316	Bedroom	31	Fail	98	Pass
H317C	Living/Kitchen	45	Marginal	84	Marginal
H318	Bedroom	23	Fail	81	Marginal
H319C	Living/Kitchen	38	Fail	78	Marginal
H320	Bedroom	55	Pass	100	Pass
H321	Bedroom	21	Fail	81	Marginal
H322C	Living/Kitchen	43	Fail	71	Fail
H323	Bedroom	49	Marginal	100	Pass
H324C	Living/Kitchen	63	Pass	99	Pass
H325	Bedroom	56	Pass	100	Pass
H326	Bedroom	74	Pass	100	Pass
H401C	Living/Kitchen	73	Pass	100	Pass
H402	Bedroom	86	Pass	100	Pass
H403C	Living/Kitchen	51	Pass	94	Marginal
H404	Bedroom	64	Pass	100	Pass
H405	Bedroom	60	Pass	100	Pass
H406C	Living/Kitchen	34	Fail	77	Marginal
H407	Bedroom	30	Fail	84	Marginal
H408C	Living/Kitchen	67	Pass	100	Pass
H409	Bedroom	38	Fail	100	Pass
H410	Bedroom	58	Pass	100	Pass
H411C	Living/Kitchen	51	Pass	94	Marginal
H412	Bedroom	41	Marginal	94	Marginal
H413	Bedroom	20	Fail	91	Marginal
H414C	Living/Kitchen	43	Fail	96	Pass
H415	Bedroom	52	Pass	98	Pass
H416	Bedroom	35	Fail	100	Pass
H417C	Living/Kitchen	46	Marginal	89	Marginal
H418	Bedroom	22	Fail	89	Marginal
H419C	Living/Kitchen	41	Marginal	79	Marginal
H420	Bedroom	64	Pass	100	Pass
H421	Bedroom	21	Fail	85	Marginal
H422C	Living/Kitchen	46	Marginal	75	Fail
H423	Bedroom	53	Pass	100	Pass
H424C	Living/Kitchen	49	Marginal	98	Pass

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** ***lx***

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
H425	Bedroom	47	Marginal	98	Pass
H426	Bedroom	74	Pass	100	Pass
H501C	Living/Kitchen	63	Pass	100	Pass
H502	Bedroom	89	Pass	100	Pass
H503C	Living/Kitchen	59	Pass	98	Pass
H504	Bedroom	64	Pass	100	Pass
H505	Bedroom	62	Pass	100	Pass
H506C	Living/Kitchen	41	Marginal	82	Marginal
H507	Bedroom	33	Fail	94	Marginal
H508C	Living/Kitchen	70	Pass	100	Pass
H509	Bedroom	40	Marginal	100	Pass
H510	Bedroom	61	Pass	100	Pass
H511C	Living/Kitchen	62	Pass	95	Pass
H512	Bedroom	46	Marginal	97	Pass
H513	Bedroom	24	Fail	92	Marginal
H514C	Living/Kitchen	56	Pass	97	Pass
H515	Bedroom	52	Pass	97	Pass
H516	Bedroom	62	Pass	100	Pass
H517C	Living/Kitchen	57	Pass	97	Pass
H518	Bedroom	24	Fail	92	Marginal
H519C	Living/Kitchen	42	Marginal	82	Marginal
H520	Bedroom	59	Pass	100	Pass
H521	Bedroom	21	Fail	97	Pass
H522C	Living/Kitchen	46	Marginal	77	Marginal
H523	Bedroom	55	Pass	100	Pass
H524C	Living/Kitchen	64	Pass	100	Pass
H525	Bedroom	56	Pass	100	Pass
H526	Bedroom	73	Pass	100	Pass
H601C	Living/Kitchen	88	Pass	100	Pass
H602	Bedroom	81	Pass	100	Pass
H603C	Living/Kitchen	58	Pass	99	Pass
H604	Bedroom	61	Pass	100	Pass
H605	Bedroom	60	Pass	100	Pass
H606C	Living/Kitchen	49	Marginal	94	Marginal
H607	Bedroom	93	Pass	100	Pass
H618	Bedroom	45	Marginal	100	Pass
H619C	Living/Kitchen	51	Pass	92	Marginal
H620	Bedroom	64	Pass	100	Pass
H621	Bedroom	73	Pass	100	Pass
H622C	Living/Kitchen	65	Pass	99	Pass

Minimum daylight provision

For all habitable rooms

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
H623	Bedroom	74	Pass	100	Pass
H624C	Living/Kitchen	71	Pass	100	Pass
H625	Bedroom	56	Pass	100	Pass
H626	Bedroom	67	Pass	100	Pass
		Count	**164**	**Count**	**164**
		Pass	**77**	**Pass**	**100**
		Pass rate	**47%**	**Pass rate**	**61%**
		Marginal	31	Marginal	42
		Pass Margina	66%	Pass Margina	87%

Block J – E_T results - Tabulated

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
J001	Bedroom	27	Fail	94	Marginal
J002C	Living/Kitchen	50	Pass	100	Pass
J003	Bedroom	54	Pass	100	Pass
J004	Bedroom	62	Pass	100	Pass
J005C	Living/Kitchen	98	Pass	100	Pass
J006C	Living/Kitchen	63	Pass	99	Pass
J007	Bedroom	55	Pass	95	Pass
J008C	Living/Kitchen	58	Pass	97	Pass
J009	Bedroom	47	Marginal	97	Pass
J101C	Living/Kitchen	89	Pass	99	Pass
J102	Bedroom	60	Pass	100	Pass
J103	Bedroom	63	Pass	100	Pass
J104C	Living/Kitchen	54	Pass	96	Pass
J105	Bedroom	33	Fail	97	Pass
J106C	Living/Kitchen	41	Marginal	93	Marginal
J107	Bedroom	35	Fail	100	Pass
J108C	Living/Kitchen	64	Pass	99	Pass
J109	Bedroom	63	Pass	100	Pass
J110	Bedroom	59	Pass	100	Pass
J111C	Living/Kitchen	56	Pass	100	Pass
J112	Bedroom	44	Marginal	100	Pass
J113	Bedroom	40	Marginal	99	Pass
J114C	Living/Kitchen	38	Fail	92	Marginal
J115	Bedroom	46	Marginal	100	Pass
J116	Bedroom	20	Fail	96	Pass
J117C	Living/Kitchen	39	Fail	76	marginal
J118	Bedroom	39	Fail	88	Marginal
J120	Bedroom	17	Fail	78	Marginal
J121C	Living/Kitchen	40	Marginal	85	Marginal
J122	Bedroom	51	Pass	99	Pass
J123	Bedroom	54	Pass	100	Pass
J124C	Living/Kitchen	37	Fail	98	Pass
J125	Bedroom	65	Pass	98	Pass
J126	Bedroom	88	Pass	100	Pass
J201C	Living/Kitchen	76	Pass	99	Pass
J202	Bedroom	48	Marginal	99	Pass
J203	Bedroom	58	Pass	100	Pass
J204C	Living/Kitchen	48	Marginal	91	Marginal
J205	Bedroom	27	Fail	96	Pass
J206C	Living/Kitchen	48	Marginal	94	Marginal

Minimum daylight provision

For all habitable room

Location ***Dublin*** ***14,900*** *lx*

Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
J207	Bedroom	33	Fail	100	Pass
J208C	Living/Kitchen	57	Pass	98	Pass
J209	Bedroom	58	Pass	100	Pass
J210	Bedroom	52	Pass	100	Pass
J211C	Living/Kitchen	74	Pass	100	Pass
J212	Bedroom	45	Marginal	100	Pass
J213	Bedroom	50	Pass	100	Pass
J214C	Living/Kitchen	58	Pass	100	Pass
J215	Bedroom	50	Pass	100	Pass
J216	Bedroom	24	Fail	90	Marginal
J217C	Living/Kitchen	35	Fail	82	Marginal
J218	Bedroom	49	Marginal	100	Pass
J219C	Living/Kitchen	44	Marginal	92	Marginal
J220	Bedroom	19	Fail	75	Fail
J221C	Living/Kitchen	38	Fail	78	Marginal
J222	Bedroom	51	Pass	99	Pass
J223	Bedroom	52	Pass	100	Pass
J224C	Living/Kitchen	47	Marginal	99	Pass
J225	Bedroom	55	Pass	98	Pass
J226	Bedroom	78	Pass	99	Pass
J301C	Living/Kitchen	78	Pass	99	Pass
J302	Bedroom	48	Marginal	100	Pass
J303	Bedroom	58	Pass	100	Pass
J304C	Living/Kitchen	46	Marginal	91	Marginal
J305	Bedroom	29	Fail	96	Pass
J306C	Living/Kitchen	47	Marginal	94	Marginal
J307	Bedroom	33	Fail	100	Pass
J308C	Living/Kitchen	57	Pass	98	Pass
J309	Bedroom	55	Pass	100	Pass
J310	Bedroom	50	Pass	100	Pass
J311C	Living/Kitchen	76	Pass	100	Pass
J312	Bedroom	58	Pass	100	Pass
J313	Bedroom	53	Pass	100	Pass
J314C	Living/Kitchen	62	Pass	100	Pass
J315	Bedroom	55	Pass	100	Pass
J316	Bedroom	24	Fail	95	Pass
J317C	Living/Kitchen	42	Marginal	84	Marginal
J318	Bedroom	53	Pass	100	Pass
J319C	Living/Kitchen	53	Pass	94	Marginal
J320	Bedroom	21	Fail	77	Marginal

	Minimum daylight provision				
					For all habitable room
	Location	*Dublin*	*14,900*	*lx*	
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
J321C	Living/Kitchen	43	Marginal	84	Marginal
J322	Bedroom	54	Pass	99	Pass
J323	Bedroom	58	Pass	100	Pass
J324C	Living/Kitchen	48	Marginal	100	Pass
J325	Bedroom	55	Pass	98	Pass
J326	Bedroom	76	Pass	99	Pass
J401C	Living/Kitchen	79	Pass	99	Pass
J402	Bedroom	48	Marginal	100	Pass
J403	Bedroom	58	Pass	100	Pass
J404C	Living/Kitchen	46	Marginal	93	Marginal
J405	Bedroom	40	Marginal	99	Pass
J406C	Living/Kitchen	49	Marginal	95	Pass
J407	Bedroom	33	Fail	100	Pass
J408C	Living/Kitchen	58	Pass	98	Pass
J409	Bedroom	57	Pass	100	Pass
J410	Bedroom	52	Pass	100	Pass
J411C	Living/Kitchen	77	Pass	100	Pass
J412	Bedroom	64	Pass	100	Pass
J413	Bedroom	60	Pass	100	Pass
J414C	Living/Kitchen	66	Pass	100	Pass
J415	Bedroom	59	Pass	100	Pass
J416	Bedroom	28	Fail	98	Pass
J417C	Living/Kitchen	48	Marginal	96	Pass
J418	Bedroom	51	Pass	100	Pass
J419C	Living/Kitchen	54	Pass	96	Pass
J420	Bedroom	27	Fail	78	Marginal
J421C	Living/Kitchen	46	Marginal	84	Marginal
J422	Bedroom	60	Pass	99	Pass
J423	Bedroom	60	Pass	100	Pass
J424C	Living/Kitchen	51	Pass	100	Pass
J425	Bedroom	53	Pass	98	Pass
J426	Bedroom	78	Pass	99	Pass
J501C	Living/Kitchen	87	Pass	99	Pass
J502	Bedroom	48	Marginal	100	Pass
J503	Bedroom	54	Pass	100	Pass
J504C	Living/Kitchen	45	Marginal	94	Marginal
J505	Bedroom	36	Fail	99	Pass
J506C	Living/Kitchen	59	Pass	98	Pass
J507	Bedroom	60	Pass	100	Pass
J508C	Living/Kitchen	58	Pass	98	Pass

	Minimum daylight provision				
					For all habitable room
	Location	*Dublin*	*14,900*	*lx*	
Ref	Type	Percentage within 300lx	EN17037 Check @ 50%	Percentage within 100lx	EN17037 Check @ 95%
J509	Bedroom	61	Pass	100	Pass
J510	Bedroom	52	Pass	100	Pass
J511C	Living/Kitchen	77	Pass	100	Pass
J512	Bedroom	64	Pass	100	Pass
J513	Bedroom	58	Pass	100	Pass
J514C	Living/Kitchen	40	Marginal	99	Pass
J515	Bedroom	66	Pass	100	Pass
J516	Bedroom	58	Pass	100	Pass
J517C	Living/Kitchen	52	Pass	98	Pass
J518	Bedroom	58	Pass	100	Pass
J519C	Living/Kitchen	49	Marginal	95	Pass
J520	Bedroom	27	Fail	92	Marginal
J521C	Living/Kitchen	51	Pass	93	Marginal
J522	Bedroom	62	Pass	99	Pass
J523	Bedroom	65	Pass	100	Pass
J524C	Living/Kitchen	54	Pass	99	Pass
J525	Bedroom	52	Pass	98	Pass
J526	Bedroom	45	Marginal	98	Pass
		Count	138	Count	138
		Pass	84	Pass	112
		Pass rate	61%	Pass rate	81%
		Marginal	30	Marginal	25
		Pass Margina	83%	Pass Margina	99%

Summary – Light Distribution all habitable rooms for all blocks.

A summary for pass results for all blocks is detailed below.
And compared with the analysis from Appendix 2 – Light Distribution – Target Illuminance (Annex NA)

	Annex NA E_T % Pass			Non-Annex 300lx @ 50%			Non-Annex 100lx @ 95%		
	BRE v3	Incl Marginal				Incl Marginal			Incl Marginal
	Pass %	Pass %			Pass %	Pass %		Pass %	Pass %
AB	93%	99%		AB	34%	57%	AB	53%	81%
C	94%	97%		C	46%	71%	C	73%	94%
D	94%	99%		D	47%	74%	D	66%	91%
E	100%	100%		E	58%	89%	E	84%	100%
FG	94%	99%		FG	37%	62%	FG	62%	87%
H	96%	99%		H	47%	66%	H	61%	87%
J	100%	100%		J	61%	83%	J	81%	99%
Total	**95%**	**99%**		**Total**	**44%**	**67%**	**Total**	**64%**	**89%**

It is our opinion that this concurs the UK committees' position that the non-annex targets are too stringent for use for residential buildings and that (in the absence of an Irish National Annex) that the targets provided in the UK Annex NA are reasonable to apply to residential housing in this case.